TEAM-BASED LEARNING: A DESIGN-BASED RESEARCH FOR BUSINESS EDUCATION IN A PRIVATE UNIVERSITY IN SARAWAK

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DECLARATION

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I hereby declare that this dissertation is the result of my own work, except for quotations and summaries which have been duly acknowledged.

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ABSTRACT

Team-Based Learning (TBL) is a student-centred learning approach that is effective to improve students' learning outcomes, knowledge, and higher-order thinking skills by promoting active learning in teams, which are strongly required for business education. There is evidence of improved student learning with TBL, but research on the strategies to improve business student learning with the implementation of TBL and descriptions on how does TBL affect learning outcomes among business students are still ambiguous. Therefore, this study was designed to gain knowledge and understanding of the implementation of TBL in business education in a private university in Sarawak. The purpose of this design-based research is to design and develop a TBL learning environment for business students in higher education and evaluate the approach to examine the students' perception towards TBL and teamwork. Specifically, this study determined the instructional needs of the business students and examined the elements and strategies to improve the TBL activities for business students based on their instructional needs. Finally, the TBL approach was evaluated to determine the students' perception towards TBL and whether TBL could improve learning outcomes. This study is divided into three phases that are derived from the KEMP's Model. The three phases are the needs analysis phase, the design and development phase, and the implementation and evaluation phases. Mixed methods were used for data collection among thirty business students and two instructors from a private university in Sarawak. The data collected from the interviews in the needs analysis phase intended to investigate the current instructional issues faced by six business students and two instructors. The findings from the needs analysis and data collected from the semi-structured interviews and an online survey during the design and development phase provided an overview of the elements and strategies needed for the design of the TBL environment from both students and instructors' perspectives. Finally, data was collected from thirty students during pre and post-implementation surveys using the Evaluation of Team-Based Learning Questionnaire during the evaluation phase. The results of this study found that the current instructional issues faced by the business students are lack of interactivity, lack of learning skills, insufficient practical exposure, and personal efforts issues. The findings also indicate that TBL activities can be improved based on the four phases of TBL, namely Pre-Class Preparation, Individual Readiness Assurance Process (I-RAP) Test, Team Readiness Assurance Process (T-RAP) Test, and Application Exercises. There was no significant difference ($p>0.05$) found in the students' perception towards TBL and teamwork after the implementation of the learning approach. There was also no significant relationship ($p>0.05$) between the students' perception towards TBL and their learning outcomes. However, the students' perception towards TBL and teamwork were good. This would indicate that the business students positively perceived TBL, and their test scores seemed to have improved with the implementation of TBL. Further studies could be conducted to determine whether TBL was effective for different courses in business education as well as in other subject areas.

Keywords: Team-Based Learning, Design-Based Research, Perception, KEMP's Model

PEMBELAJARAN BERASASKAN PASUKAN: KAJIAN BERASASKAN REKAAN UNTUK PENDIDIKAN PERNIAGAAN DI SEBUAH UNIVERSITI SWASTA DI SARAWAK

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ABSTRAK

Pembelajaran Berasaskan Pasukan (TBL) adalah pendekatan pembelajaran berpusatkan pelajar yang berkesan untuk meningkatkan hasil belajar, pengetahuan, dan kemahiran berfikir dengan mempromosikan pembelajaran aktif dalam pasukan yang sangat diperlukan untuk pendidikan perniagaan. Bukti menunjukkan bahawa TBL berkesan untuk meningkatkan pembelajaran, tetapi kajian tentang strategi untuk meningkatkan pelaksanaan TBL di kalangan pelajar perniagaan dan penerangan tentang pendekatan ini masih kabur. Oleh itu, kajian ini direka untuk mendapatkan pemahaman mengenai pelaksanaan TBL dalam pendidikan perniagaan di sebuah universiti swasta di Sarawak. Tujuan kajian berasaskan rekaan ini adalah untuk merekabentuk dan membangunkan persekitaran pembelajaran TBL untuk pelajar perniagaan dan menilai pendekatan ini dengan mengkaji persepsi pelajar terhadap TBL dan kerja berpasukan. Khususnya, kajian ini menentukan keperluan pelajar perniagaan dan mengkaji unsur-unsur dan strategi untuk meningkatkan kegiatan TBL berdasarkan keperluan mereka. Akhir sekali, pendekatan ini dinilai dengan menentukan persepsi pelajar terhadap TBL dan sama ada pendekatan ini dapat meningkatkan hasil pembelajaran. Kajian ini dibahagikan kepada tiga fasa yang diperolehi daripada Model KEMP, iaitu fasa analisis keperluan, fasa reka bentuk dan pembangunan, serta fasa pelaksanaan dan penilaian. Data dikumpulkan di kalangan tiga puluh orang pelajar perniagaan dan dua orang pengajar dari universiti tersebut. Data dikumpul dengan temubual dalam fasa analisis keperluan bertujuan untuk menyiasat isu pengajaran yang dihadapi oleh responden. Penemuan dari analisis keperluan dan data yang dikumpulkan dari wawancara berstruktur serta kaji selidik secara'online' semasa fasa reka bentuk dan pembangunan memberikan gambaran keseluruhan elemen dan strategi yang diperlukan untuk reka bentuk TBL dari perspektif pelajar dan pengajar. Akhirnya, data dikumpulkan dari tiga puluh orang pelajar semasa tinjauan pra dan pasca-pelaksanaan menggunakan Soal-Selidik Penilaian TBL semasa fasa penilaian. Hasil kajian mendapati bahawa masalah pengajaran yang dihadapi oleh pelajar perniagaan adalah kurang interaktiviti, kurang kemahiran belajar, pendedahan praktikal yang tidak mencukupi, dan isu-isu usaha peribadi. Penemuan ini juga menunjukkan bahawa aktiviti TBL dapat ditingkatkan berdasarkan empat fasa, iaitu Ujian Pengesahan Pra-Kelas, Ujian Jaminan Kesediaan Individu (I-RAP), Ujian Jaminan Kesediaan Pasukan (T-RAP), dan Latihan Aplikasi. Tidak terdapat perbezaan yang signifikan ($p > 0.05$) dalam persepsi pelajar terhadap TBL dan kerja berpasukan selepas pelaksanaan pendekatan ini. Tidak terdapat hubungan yang signifikan ($p > 0.05$) antara persepsi pelajar terhadap TBL dan hasil pembelajaran mereka. Persepsi terhadap TBL dan kerja berpasukan di kalangan pelajar adalah baik. Ini menunjukkan bahawa para pelajar perniagaan berpersepsi positif terhadap TBL, dan skor ujian mereka seolah-olah telah bertambah baik dengan pelaksanaan pendekatan ini. Kajian lanjut boleh dilakukan untuk menentukan sama ada TBL adalah berkesan untuk kursus-kursus yang berlainan dalam pendidikan perniagaan dan juga bidang-bidang lain.

Kata Kunci: Pembelajaran Berdasarkan Pasukan, Penyelidikan Berasaskan Reka Bentuk, Persepsi, Model KEMP

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LIST OF ABBREVIATIONS

TBL	Team-Based Learning
DBR	Design-Based Research
NKEAs	National Key Economic Areas
GDP	Gross Domestic Production
MOHE	Malaysian Ministry of Higher Education
CPA	Certified Public Accountant
ACCA	Association of Chartered Certified Accountants
RAP	Readiness Assessment Process
I-RAT	Individual Readiness Assurance Test
T-RAT	Team Readiness Assurance Test
IF-@	Immediate Feedback Assessment
TAE	Team Application Exercises
PREDICT	Promoting Realistic Engaging Discussion in Curriculum Teams
SLE	Strategic Learning Environment
GCC	Gulf Cooperation Council
MQF	Malaysian Qualifications Framework
MQA	Malaysian Qualifications Agency
LMS	Learning Management Systems
TBT	Team-Based Testing
ZPD	Zone of Proximal Development
MKO	More Knowledgeable Other
FC-TBL	Flipped Classroom- Team-Based Learning
HRM	Human Resource Management
IB	International Business
SMCQs	Sequential Multiple-Choice Questions
SPSS	Statistical Package for the Social Sciences
GCC	Gulf Cooperation Council
CSR	Corporate Social Responsibility
ICT	Information Communication Technology

CHAPTER 1

INTRODUCTION

1.0 Introduction

In this chapter, an overview of the study, covering the background of the study, problem statement, objectives of the study, research questions, research hypotheses, and significance of the study are discussed. In addition, this chapter also defines the key terminologies used in this research as well as presenting the limitations of the research.

1.1 Background of the study

With the current rapid educational development in Malaysia, the expectations for higher education is increasing, and the issues regarding quality education are becoming ever more critical (Tenth Malaysia Plan, 2010). The Malaysian government had allocated few billion ringgits in higher education scholarship and training programs under the Eleventh Malaysian Plan (Ministry of Finance Malaysia, 2017). The Malaysian government has been consistently spending a tremendous amount of money on education, but the return on investment in term of student outcomes is not as high as desired compared to other countries, particularly for higher education (Ministry of Education Malaysia, 2013). Therefore, more educational research was carried out in conjunction with the strategies implemented under the Eleventh Malaysian Plan 2016-2020 to fulfil the high expectations of Malaysian society towards higher education. Nowadays, the focus of education is no

longer just on the development of content knowledge, but also the development of higher-order thinking skills, aligning with the National Education Philosophy that emphasises on the holistic development of all children intellectually, spiritually, emotionally, and physically (Ministry of Education Malaysia, 2013).

Education plays an essential role in the development of human capital as Malaysia strives to achieve a knowledge-based economy by the year 2020 (Ministry of Higher Education Malaysia, 2015). The Education Development Plan aims to bring about a new era of education reform and to develop the nation's education system to accomplish an excellent standard. One of the strategic steps to achieve the aim is by enhancing the quality of education to provide equal access to quality education of an international standard. In conjunction with the Eleventh Malaysian Plan, the Malaysian Government is putting efforts in instituting a world-class university system in order to transform Malaysia into a knowledge-based economy and a regional education hub by 2020 (Mosaku & Ghafar, 2010).

Umoru (2012) indicated that poor higher-order thinking skills have led the graduates to unemployment, poverty and the country's underdevelopment. As a result, higher education institutions everywhere in the world are continually changing in the pursuit of quality, recognition, and progression to develop into world-class universities or colleges.

1.1.1 Learning in Higher Education

One of the National Key Economic Areas (NKEAs) under the Tenth Malaysia Plan is to increase the contribution of private education to Gross Domestic Production (GDP) by 2 per cent in 2015 and to attract 150,000 international students by 2020 (Tenth Malaysia Plan, 2010). On the other hand, the Malaysian Ministry of Higher Education

(MOHE) found that there is a gap in students' expectation, particularly international students' perceptions towards the academic staff. International students expect more interaction, engagement, and psychological support from their lecturers (Chong & Amli, 2013). However, little research has studied educationally effective strategies to improve students' engagement in tertiary education (Popovici & Mironov, 2015).

The Malaysian Ministry of Higher Education (MOHE) has implemented various strategies such as enhancing educational scholarship, developing excellent educational institutions with world-class leadership, increasing number of enrolments in higher education, and the number of private educational institutions. The emerging of the knowledge economy and globalisation has promoted the importance of quality learning in higher education (Rena, 2010). Nowadays, higher education has become vital especially in a knowledge-driven economy as innovation and human capital are seen as keys to the future economic growth of a nation (Mattoon, 2006). Human Capital Theory indicated that education plays an essential role in contributing to the global economic growth of a country (Belfield, 2013).

Also, Competence-Based Education has become a contemporary issue in higher education because adult learners tend to learn at their own pace flexibly to advance and build on their skills and knowledge (Lassnigg, 2015). Competence-Based Education emphasises on the knowledge, skills, and attitudes required by the students in the future as curriculum basis. The Malaysian universities were also concerned about their teaching and learning programs outcomes and established university graduate attributes that would ensure their graduates were capable in their chosen professional and competent in future work and community conditions (Lassnigg, 2015). Generic and employability skills such

as teamwork skills, oral and written communication skills, problem-solving skills, analytical skills, and ability to work independently are important requirements that are expected to contribute to the development of these graduate attributes (Jonassen, 2013). Therefore, it is to be concluded that these generic skills are crucial to developing the graduates' higher-order thinking skills.

1.1.2 Business Education in Higher Institutions

A number of business education problems were identified in previous studies. Ballantine, Duff & Larres (2008) reported that accounting education is narrow in focus by concentrating on the Certified Public Accountant (CPA) examination. Business education should also emphasise on developing analytical and conceptual thinking to prepare the students for their future career.

There is another problem in business education programs. The problem is business students are frequently not being taught using approaches that promote active learning. Recently, teachers and lecturers are always troubled by class attendance and poor students' preparation issues in which the students do not read and are not well-prepared before the lectures (Tweddell, Clark & Nelson, 2016). These issues might lead to low participation and low interaction between the instructors and their students. The lack of interaction between Malaysian instructors and students during lectures could not make students' thinking visible (Hong, Lim & Ngu, 2012) and might lead to misconceptions regarding subject areas that are rooted from flawed understanding and thinking processes on the facts or concepts learnt. The misconceptions phenomena will eventually obstruct the students' higher-order thinking (Powell, Straub, Rodriguez & VanHorn, 2011).

Consequently, most of the corporations reported that Malaysian business graduates were lack of higher-order thinking skills, particularly problem solving and critical thinking skills (Chiew & Siraj, 2013). In addition, there seem to be too little efforts carried out by business schools to develop students' analysis and critical thinking skills (Ortenblas, Koris, Farquharson & Hsu, 2013). Some researchers suggest that Team-Based Learning is able to increase students' participation (Artz & Jacobs, 2016) and encourage higher-order thinking (Kim, Song, Lindquist & Kang, 2016; Tweddell et al., 2016; Pauleen, Marshal & Egort, 2004). Therefore, this study was conducted to investigate the students' perceptions of the three stages activities of Team-Based Learning.

According to Cornelius (2014), the main reason for the business education issues is that business lecturers often teach using lectures to deliver a massive amount of contents to the students because they are not used to non-traditional teaching approaches. However, passive traditional learning approaches do not develop the students' active learning and application abilities. The diffusion method of instruction, or "Talk and Chalk" is insufficient to boost quality education. Accordingly, the virtual classroom, e-learning and blended learning are slowly replacing face-to-face interaction with the establishment of distance education and open universities (Pitler, Hubbell & Kuhn, 2012). A great deal of educational research was conducted to explore the best methods and strategies to enhance classroom practices.

1.1.3 Team-Based Learning in Higher Education

Group-based learning was implemented through learning activities that were believed to be able to enhance higher-order understanding. It promotes a learning environment that enables students to reflect upon newly learnt knowledge by talking with and actively listening to their peers. According to the literature, students tend to develop a

shared understanding of the new topics learned which helps to retain their learning. As a conclusion, learning in groups can increase learners' motivation by boosting their academic engagement and self-esteem (Pitler et al., 2012).

On the other hand, Cheesman, Winograd, and Wehrman (2010) reported that there had been limited researches to determine effective pedagogies and resources for business education. Hence, this study was conducted to investigate the implementation and effectiveness of team-based learning among business students. Michaelsen and Sweet (2011) indicated that the six best practices in evidence-based teaching were cooperative learning, reciprocal teaching, feedback or assessment for learning, visual presentations and graphic organisers, whole-class interactive teaching, and requiring concept-driven decisions in which group-based learning was considered as one of the best practices. However, traditional lecture pedagogical approach only promotes passive learning and do not educate students to incorporate knowledge learnt from the lectures into real-life business practice (Cornelius, 2014).

Team-Based Learning is one of the group-based teaching and learning approaches that is believed to be able to enhance both individual and group conceptual learning (Leatherbury, 2016). Team-Based Learning helps the students to learn collaboratively in small groups of 5-7 members (Michaelsen, Sweet & Parmelee, 2008). This approach is not only essential for students in primary and secondary education but for those in higher education as well, because teamwork skill is one of the essential generic skills to develop graduate attributes in tertiary education (Jonassen, 2013). This learning approach is crucial to turn them into good team players when they leave universities and enter the workforce. There was empirical evidence revealed that Team-Based Learning has a significant positive relationship with student achievement, learning outcomes, and the development

of high orders of group cohesiveness (Michaelsen & Sweet, 2008; Michaelsen & Sweet, 2011).

Accordingly, Kim et al. (2016) also described Team-Based Learning as an active learning approach that is highly cost-effective and is a useful tool to promote students' problem-solving and critical thinking abilities. The effectiveness of Team-Based Learning in developing learners' higher-order and critical thinking skills were supported by Gryka, Kiersma, Frame, Cailor and Chen (2016); Rita, Neda & Nasrin (2016); River, Currie, Crawford, Betihavas, and Randall (2016); Tweddell et al. (2016); and Remington, Bleske, Bartholomew, Dorsch, Guthrie, Klein, Tingen & Wells (2017).

It is suggested that lecture is a passive instructional method that could only promote rote memorisation, not the content application, even accompanied by presentation slides (Cornelius, 2014). In the Ministry of Higher Education Malaysia (2015), the Ministry of Higher education has made an essential requirement for all universities and colleges to incorporate seven specific learning skills into their undergraduate courses. These learning skills include communication skills, critical thinking and problem-solving skills, teamwork, lifelong learning and information management skills, entrepreneurship skills, ethics and professional moral skills, and leadership skills. Critical thinking and teamwork skills are posited as parts of the Team-Based Learning approach. However, Ming and Alias (2007) found that the majority of the students surveyed, drawn from three local universities in Malaysia, preferred the teacher-centred learning approach than the student-centred approach. Most of them preferred their lecturers and tutors to provide them with full guidance and learning materials. These findings imposed the urgency of implementing Team-Based Learning intervention in higher education to promote the student-centred approach to learning.

1.1.4 Strategies of Team-Based Learning in Business Education

The Team-Based Learning method is an instructional strategy that concerns the students learning by encouraging them to learn collaboratively with their colleagues in teams throughout the semester. Constructivism Learning Theory was used as the theoretical basis to study the effectiveness and application of Team-Based Learning in higher education (Abdal-Haqq, 1998). This theory believes that students learn new knowledge only when they construct their own learning from their background and experiences by sharing in teams and with the support of others in the groups.

Larry Michaelsen initially developed Team-Based Learning in the 1970s for the business management area. Therefore, this learning approach plays a significant role in business education context (Tweddell et al., 2016). When used in business education, Team-Based Learning guides the instructors with learning strategies through the three-step process to facilitate business students via team learning activities to ensure alignment between the needs of contemporary instructional approaches and the workplace competencies (Huang & Lin, 2017). The three steps suggested were pre-class activities, in-class activities and post-class activities. The pre-class activities help to prepare the students before class by requiring them to watch videos and to complete assigned cases and assignments. Following the pre-class process, the students would involve in in-class activities with their instructors' guidance in order to allow the students to organise, apply and share their ideas in teams. Finally, the learners would involve in post-class activities by sharing their ideas and knowledge online via Facebook supported online discussions both individually and in teams.

On the other hand, Cooperative Learning is considered as the oldest form of group learning approach that requires the students to work by their own in teams without the direct and immediate supervision of instructors (Davidson & Major, 2014). Similarly, Collaborative Learning is also encouraging students to work in teams to accomplish their common goals. However, not all the teams work interdependently by not necessarily co-operative to complete the same task. The team members might divide the assignment and assemble the individual parts to achieve their goal (Davidson & Major, 2014). Both Collaborative and Cooperative Learning are incorporating Jigsaw Techniques. Ultimately, Problem Based Learning is assumed as a collaborative and reflective approach that incorporates complex and interdisciplinary real-world problems as its learning catalyst. Instructors involve very directly in problem-based learning in which they will physically present to facilitate the students when any guidance is needed (Michaelsen, Davidson & Major, 2014). Despite the advantages and characteristics of these group-learning approaches, Team-Based Learning was selected due to its nature, which initially initiated for business management education and hence plays an exceptionally crucial role in business education context (Tweddell et al., 2016).

Whitley, Bell, Eng, Fuentes, Helms, Maki & Vyas (2015) proposed three phases of Team-Based Learning to boost the effectiveness of Team-Based Learning activities among medical students, particularly in its development, preparation, implementation, assessment, and evaluation processes. The first phase was instigated to develop the students' knowledge via independent study and pre-class assignments. The second phase was known as the Readiness Assessment Process (RAP) in which an Individual Readiness Assurance Test (I-RAT) and a Team Readiness Assurance Test (T-RAT) was given to the students. The I-RAT test questions were developed based on the lower-order of Bloom's Taxonomy to assess the students' abilities to engage in knowledge application.

Following the I-RAT, the students were required to retake the I-RAT as a team in their lecturer assigned groups. This test is known as Team Readiness Assurance Test (T-RAT). Students were given opportunities to defend and argue their answers instantaneously to their classmates. The instructor plays a crucial role in clarifying any misunderstood concepts among the students (Michaelsen & Sweet, 2008). Finally, more complex application problem was being tested in phase three using team application exercises that were developed based on the higher order of Bloom's Taxonomy. This phase is vital to provide the students with a collaborative learning experience with their teammates (Whitley et al., 2015).

These three phases of Team-Based Learning were strongly supported by Michaelsen and Sweet (2011). According to them, Team-Based Learning processes started with the pre-class individual study. This process followed by an individual test (I-RAT) and a team test (T-RAT) to measure the students' understanding after their pre-readings. The T-RAT questions were answered using an Immediate Feedback Assessment (IF-@) Form. The students would fill in an appeal form whenever they are not satisfied with the proposed answers. As follow up from the tests, the lecturer would briefly explain the unclear parts to the students based on their individual and team scores. Eventually, the students were required to complete a higher-order application of course concepts exercise to apply their knowledge learnt in the previous two phases to a more complicated case study question. The Team-Based Learning activities ended with peer evaluations among the team members. Cornelius (2014) commented that individual case studies and problem-based learning styles without assigning the students in groups were considered as a redundancy that could reduce students' knowledge application progression.

There were four practical elements of Team-Based Learning as described by Michaelsen and Sweet (2011). These elements are strategically formed, permanent teams, readiness assurance, application activities, and eventually peer evaluation. They believed that team-based critical thinking could be promoted via the application activities. Besides, Whitley et al. (2015) proposed that the students' critical thinking skills could be expanded via peer-to-peer debates during the team application exercises. Cook and Catkins (2013) also suggested that active learning and critical thinking could be cultivated when questions are designed using Bloom's Revised Taxonomy to encourage higher-order thinking. In this study, an in-depth investigation was conducted to determine methods and strategies to enhance the Team-Based Learning approach.

Studies have shown that Team-Based Learning is beneficial and useful in higher education (Leatherbury, 2016). Previous researches also indicated that the Team-Based Learning approach could be able to engage high school students in team learning activities in order to promote higher-order thinking in all subject areas (Leatherbury, 2016). However, most of the study done in higher education were carried out among pharmacy, medical and nursing students (Whitley et al., 2015; Kim et al., 2016; Tweddell et al., 2016). There is an identified deficiency in the study regarding the implication of Team-Based Learning on business education. In conclusion, Team-Based Learning brings positive impact towards high school and medical sciences students learning. On the other hand, there is a gap in the literature concerning the effectiveness of Team-Based Learning and strategies to improve Team-Based Learning for business education in higher education.

1.2 Problem Statement

The primary instructional problems recognised within business education in the higher institution are the practice of passive teaching strategies including face-to-face lecture, presentation slides, and reading materials, which are considered as teacher-centred. Teacher-centred approaches demotivate the students to be actively involved in the teaching and learning process. Cornelius (2014) reported that lectures are a passive instructional method that even accompanied by presentation slides, could only promote rote memorisation, not the content application. Additionally, Ortenblas et al. (2013) also indicated that there were minimal studies on university accounting and business students' learning approaches.

Thang & Azarina (2007) discussed that primary and secondary schools' students in Malaysia are used to learning in an instructor-centred learning environment, and they have brought this learning approach to higher education. The students will find it hard to adapt themselves to student-centred environments in higher institutions. This phenomenon will lead to unsatisfactory academic performance and drop out of the universities or colleges (Tinnesz, Ahuna & Kiener, 2006). Due to the importance of student-centred learning and responding to a need to examine effects of Team-Based Learning on learning outcomes, this research is carried out to explore Team-Based Learning as a new approach toward improving teaching and learning process in higher education.

There is a gap in the literature regarding the perceptions and experiences of team-based learning strategy used in the business education. Based on the literature reviews, most of the Team-Based Learning studies were conducted among pharmacy, medical, and nursing students (Whitley et al., 2015; Kim et al., 2016; Tweddell et al., 2016). River et al. (2016) reported that the study and evidence regarding the effectiveness of Team-Based

Learning in enhancing the students' performance and learning outcomes were very limited followed by scarce literature on the effectiveness of Team-Based Learning in enhancing higher-order thinking among business students and the strategies to improve business students' learning with the implementation of Team-Based Learning in Asia (Huang & Lin, 2017). If Team-Based Learning could have a positive effect on medical sciences students, there is a pressing need for more research to explore and investigate the business instructors and students of team-based learning used in the business classroom. This study intends to fill in the literature gaps by sustaining students' learning at business education through the improvement of Team-Based Learning based on the methods and strategies suggested by the students and Team-Based Learning practitioners.

Eventually, Artz & Jacobs (2016) emphasised the importance of students' academic performance factor on their Team-Based Learning outcomes. Frame, Cailor, Gryka, Chen, Kiersma & Sheppard (2015) reported that Team-Based Learning improves learning outcomes of both academically weak and strong students. Furthermore, Rathner and Byrne (2014) suggested that a Team-Based Learning team should consist of both academically weak and strong students to overcome the weaker students' educational disadvantages. Previous studies found that academically weak medical students benefitted more than academically strong students (Dele, Faseyi, Ogundiran, Alao & Medavarapu, 2016; Whittaker, 2014; Clair & Chihara, 2012).

However, the descriptions of how Team-based Learning affect learning outcomes among business students with different academic performance were still insufficient and ambiguous. Hence, this study seeks to investigate the effects of Team-Based Learning on learning outcomes among business students in the higher institution. This study was designed to gain knowledge and understanding of the implementation of Team-Based

Learning in higher education. The overall aim of the study is to study the implementation of Team-Based Learning as a teaching and learning tool and how it takes place in the university to improve perception and learning outcomes among business students.

1.3 Research Objectives

Based on the background of study and problem statement, the researcher employed this research to develop and improve Team-Based Learning strategy for business education in a private international higher education institution in Malaysia. This study was divided into three phases based on KEMP's Model. The three phases are the needs analysis phase, the design and development phase, and the evaluation phase. The objectives of the study are as follows:

PHASE 1: NEEDS ANALYSIS

i. To determine the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives.

PHASE 2: DESIGN AND DEVELOPMENT

ii. To identify the elements to be incorporated in the development of the Team-Based Learning activities for business education in a private international higher education according to experts' opinion.

PHASE 3: IMPLEMENTATION AND EVALUATION

iii. To examine the methods and strategies to improve Team-Based Learning for business education in a private international higher education based on the

students' recommendations after the implementation of the Team-Based Learning approach.

iv. To identify the business students' perception of the practice of Team-Based Learning in a private international higher education institution using an Evaluation of TBL questionnaire.

v. To investigate the relationship between the students' perception towards Team-Based Learning and learning outcomes among business students in a private international higher education institution.

1.4 Research Questions

Based on the problem statement and research objectives, the following research questions have been identified for this study based on the three phases of the KEMP's Model. Therefore, this study attempts to answer the following research questions:

PHASE 1: NEEDS ANALYSIS

RQ1 : What are the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives?

PHASE 2: DESIGN AND DEVELOPMENT

RQ2: What are the experts' views on the elements that should be incorporated into the development of the Team-Based Learning activities for business education in a private international higher education institution?

PHASE 3: IMPLEMENTATION AND EVALUATION

RQ3: Which are the methods and strategies to improve Team-Based Learning for business education in a private international higher education institution based on the students' recommendations after the implementation of the Team-Based Learning approach?

RQ4: How do the business students in a private international higher education institution perceive the practice of Team-Based Learning?

RQ5: What is the relationship between the students' perception towards Team-Based Learning and their learning outcomes among business students in a private international higher education institution?

1.5 Research Hypotheses

Research questions 1, 2 and 3 are descriptive in nature. Research questions 4 and 5, on the other hand, are reflected in the following research hypothesis.

H_01 There is no significant difference in the students' perception towards Team-Based Learning and Teamwork in Team-Based Learning before and after the implementation of Team-Based Learning in a private international higher education institution.

H_02 There is no significant relationship between the students' perception towards Team-Based Learning and learning outcomes among business students in a private international higher education institution.

The learning outcomes refer to the students' total scores of Individual Readiness Assurance (I-RAT) Tests, Team Readiness Assurance (T-RAT) Tests, and Team Application Exercises for a business unit studied in this research.

1.6 Significance of the Study

The main purpose of this study is to investigate how does Team-Based Learning take place in university to improve business students' perception and learning outcomes by incorporating students' and Team-Based Learning practitioners' suggestions to enhance their learning. This study also determined methods and strategies to improve Team-Based Learning in higher education.

This study contributes to the limited literature on the usage of Team-Based Learning in instructions, especially in the Malaysian context, particularly on the university level's business subject and Asian context in general. This study contributed to increasing clarification of the importance of Team-Based Learning in higher education to ensure that our Malaysian students benefit from better classroom teaching and learning processes. This study could be one of the literature of references for educators who are interested in studying teaching and learning methods and strategies.

Furthermore, this study also contributes to the practice on how Malaysia's universities could encourage and provide a conducive learning environment for Team-Based Learning among students. Therefore, university management and Malaysia Higher Education Department should support lecturers' interest in the related professional field and cultivate continuous Team-Based Learning approach in the university environment.

The design-based research methodology used to collect data for this research could support previous research in the area of Team-Based Learning education. In addition, both quantitative and qualitative approaches are used in this study. The methods could enhance the existing method regarding the study, guide future research on how the data is collected, and give a better understanding to the readers regarding the findings of the study.

1.7 Limitations of the Study

There are some limitations in this study. The study is limited to only one cohort of Bachelor of Business program students in a private international higher education institution in Malaysia. This university was chosen due to the availability in which their main campus is encouraging their academic staff to carry out Team-Based Learning actively as one of their new instructional strategies. This study also did not attempt to compare between the types of universities such as public universities, private universities and branched international universities, which might have different school cultures. Besides, this research was only conducted for the Human Resource Management subject. It did not include other subjects such as Accounting, Finance, Marketing, and International Business.

This study is design-based research that involves only subjects from a business degree in which the findings may only be confined to units of study with a similar curriculum design. Generalizability of the findings on different courses such as engineering and medical sciences will require further investigation. Factor Analysis was also not being done in this study. The pre-existing factors and external influences that may affect the results were determined based on the literature.

1.8 Definitions of Terms

The terms used in this research have its specific meaning. The operational definitions of key terms, especially the variables investigated in the study are listed in this section.

1.8.1 Team-Based Learning (TBL)

The team refers to a group of two or more people who interact with and influence each other, are mutually accountable for achieving common goals associated with organisational objectives and perceive themselves as a social entity within an organisation (McShane, Olekalns & Travaglione, 2013). Team-Based Learning is a teaching and learning strategy which developed by Michaelsen (Tweddell et al., 2016). Kim et al. (2016) defined Team-Based Learning as a student-centred learning approach that is effective to improve students' learning outcomes, knowledge, critical thinking, and problem-solving ability by promoting active learning in teams.

In this study, the team refers to groups of students that consist of 4-5 students who were enrolled in a business unit in a private international higher education institution in Sarawak, Malaysia. Team-Based Learning is a contemporary instructional strategy used to support the development of the university Human Resource Management students' learning in a team. Team-Based Learning approach consists of four phases. The four phases are pre-class preparation, individual and team readiness assessment process (RAP) tests, and team application exercises. In this study, the unit lecturer and tutor served more as a facilitator than as a content expert.

1.8.2 Instructional Issues

The instructional issue is to determine the problems of instructional needs, resource availability, curriculum design, course development, faculty capacity, and incentives for the effective delivery of education (Bunn, 2001). In this study, instructional issues focus on the instructional needs of business students in higher education. Instructional needs refer to the problems faced by the business students in the art or practice of teaching and learning.

1.8.3 Teaching Methods and Strategies

The teaching method is a generalised and well-defined approach to the presentation of instructional materials in an orderly manner, which regularly composed of different techniques and strategies. On the other hand, teaching strategy is a subpart of the overall teaching method that is narrower in scope and is the specific means by which the instructional method is implemented (Davis, 1976). In this study, the methods and strategies refer to the teaching approaches to improve Team-Based Learning in higher education based on the suggestions obtained via an online survey, focus group and one-to-one interviews with the business students and instructors before and after the implementation of the Team-Based Learning activities.

1.8.4 Perception

Perception is the process of receiving, selecting, organising, and interpreting information in order to make sense of the world around us (McShane et al., 2010). In this study, perception refers to the students' willingness to accept Team-Based Learning as their teaching and learning tools at the university level to enhance their learning and team

engagement in the class. The students' perception of Team-Based Learning was determined by adapting the Team-Based Learning Evaluation Questionnaire developed by Nagaswami, DeFouw, and Compton (2009) in their previous study.

1.8.5 Learning Outcomes

Learning outcomes is the knowledge and skills demonstrated by a student after completing the learning process. It is described as the achievement to accomplish something successfully (Biggs & Tang, 2011). In this study, students' learning outcomes can be indicated via their academic performance of a Human Resource Management unit in a private international higher education institution in Malaysia. Academic performance is the learners' degree of competence in schools' educational activities for certain subjects or area of study (Baird, 1982). In this study, the students' learning outcomes were evaluated based on the students' total scores of Individual Readiness Assurance (I-RAT) Tests, Team Readiness Assurance (T-RAT) tests, and Team Application Exercises for a business unit studied in this research.

1.8.6 Business Education

Business Education is education about business and education for business, which educates students on business fundamentals, theories, and processes (Chiew & Siraj, 2013). Typical business courses offered are Accounting, Finance, Marketing, International Business, Human Resource Management, and Management. In this study, Team-Based Learning activities were conducted for one of the selected Human Resource Management subjects in a private international higher education institution in Malaysia. All the students who have enrolled in this subject were invited to participate in this study. These respondents consisted of students who were majoring in Accounting, Finance, Marketing, International Business, Human Resource Management, and Management.

1.8.7 Human Resource Management

Human Resource Management is a field focus on managing people within the employer-employee relationship. Specifically, this subject involves the productive use of people in achieving the organisation's strategic business objectives and to satisfy individual employee needs (Stone, 2011).

Human Resource Management (HRM) is one of the programs of study for Bachelor of Business in a private international higher education institution in Malaysia. Science and Engineering students can also choose the fundamental HRM units as their elective subject. HRM unit consists of topics related to Human Resource Planning, Human Resource Information Management System, Job Analysis, Recruitment and Selection, Performance Management, Human Resource Development and Career Development, Employee Motivation, Employee Remuneration, Change Management, Employee Health and Safety, and Diversity Management. It takes 12 weeks' time to complete a unit. In order to achieve a pass in the units, the students are required to obtain an aggregate mark for the subject of 50% or more.

1.8.8 Individual Readiness Assurance Process (I-RAP) Test

Individual Readiness Assurance Process (I-RAP) Test is an individual test that encourages students to prepare for the lecture (Michaelsen, 2008). In this research, the I-RAP test consists of 12 multiple choices questions with four options- A, B, C, and D. Three I-RAP Tests were carried out continuously throughout the semester to examine the progress of the students' performance. The test questions were developed based on the lower orders of Bloom's Taxonomy (Remembering and Understanding levels).

1.8.9 Team Readiness Assurance Process (T-RAP) Test

Team Readiness Assurance Process (T-RAP) Test is the same test as the I-RAP Test and it is retaken with team members on a single answer sheet, and the team members were encouraged to appeal on any questions that the team missed on the T-RAP Test (Michealsen, 2008). In this study, T-RAT consists of the same set of questions taken in I-RAP Test. Answer-until-correct assessment method was practised in the T-RAP Test to provide immediate feedback to the students and instructor.

1.8.10 Team Application Exercise (TAE)

Team Application Exercise is the last stage of the Team-Based Learning that requires the students to apply the course concepts through in class team application activities. These exercises account for most of the in-class time allocated for the course (Michaelsen & Sweet, 2011). In this study, the Team Application Exercise was conducted using real-life case study. It was an open book test in which the students were allowed to discuss the cases and answers in their own groups. Basically, they were required to apply the knowledge they learned from the lecture and learning materials to answer the 3 questions given. The questions were developed based on the higher orders of Bloom's Taxonomy, which include Applying, Analyzing, Evaluating, and Creating levels.

1.9 Summary

This chapter outlined some of the problems that university educators and students faced and the roles that Team-Based Learning plays in enhancing their teaching and learning processes. Nevertheless, the literature showed that there is a lack of study on Team-Based Learning among business students, particularly in the Malaysian context. Thus, the literature provided a basis for this research, which is to investigate the Team-

Base Learning among business students in a private international higher education institution. The next chapter discusses the literature pertinent to this research.

CHAPTER 2

REVIEW OF LITERATURE

2.0 Introduction

This chapter confers the literature and research findings of the design-based research, team-based learning in general and in higher education context as well as the relevant strategies. It focuses on the concepts and measures relating to team-based learning in higher education. This chapter also discusses the conceptual framework from previous studies, preceding methodological issues, and the theoretical framework.

2.1 Issues in Higher Education and Business Education

Lately, educators in higher education were troubled by the poor students' engagement issues in which most of the students were not well-prepared for their lectures (Tweddell et al., 2016). Malaysian students were used to learning in an instructor-centred environment during their primary and secondary schools, and they have brought this learning approach to higher education. As a result, the students found it difficult to shift from teacher-centred to student-centred environments in higher institutions (Thang & Azarina, 2007). This issue has led to the students' unsatisfactory academic performance and eventually drop out from the higher institutions (Tinnesz, Ahuna & Kiener, 2006).

It was found that educators were more focused on the content of learning than the actual design, delivery and outcomes elements of the content (Fahey, 2012). Therefore, Parker & Quinsee (2012) recommended institution-wide projects related to curriculum design in the last few years. Promoting Realistic Engaging Discussion in Curriculum Teams (PREDICT) was formed in the study done by Parker and Quinsee (2012) to develop a more efficient new curriculum design process for Strategic Learning Environment (SLE). SLE aimed to change the virtual learning environment with new pedagogic focus. SLE emphasised on assessment and feedback, collaboration and communication, learning and research assets, learning environment and curriculum design, and a range of educational methods to support learning. However, the higher institutions were now facing financial funding issues, administrative workload burden, increasing focus on research, and inadequate knowledge and resources on quality assurance system (Parker & Quinsee, 2012).

According to Hong et al. (2012), the lack of interaction between Malaysian instructors and students in lecture could not make the students' thinking visible and might lead to the misconceptions issue that would hinder the students' higher-order thinking (Powell et al., 2011). Malaysian universities and college students, particularly international students, expect more interaction, engagement, and psychological support from their lecturers (Chong & Amli, 2013). Furthermore, most of the corporations reported that Malaysian business graduates lacked higher-order problem solving and thinking skills (Chiew & Siraj, 2013; Tweddell et al., 2016). Recently, Jerome, Julia, and Ting (2017) imposed that it was challenging to incorporate higher-order thinking skills into teaching and student learning in Malaysia.

Furthermore, Khaled and Maysoon (2018) reported that there was a gap between the business students' competencies and skills in universities and the needs of the current job market. According to the authors, the business educators were too emphasised on the hard skills such as technical skills, thinking skills, and business knowledge. However, business employers were more concerned about the applicants' learning soft skills such as interpersonal, communication, leadership, work ethics, social responsibility, collaboration and teamwork skills. These learning skills were believed to be able to increase the employability of the students. The Ernst & Young Report (2015) also conveyed that three-quarter of employers in the Gulf Cooperation Council (GCC), including Qatar indicated that the fresh graduates were not well-equipped with necessary learning skills. Additionally, Lopez-Navarro and Segarra-Cipres (2015) who was concerned about the welfare of business stakeholders commented that Corporate Social Responsibility (CSR) and social ethics issues were inadequately covered in current business education.

Several other business education issues were mentioned in previous studies. Ballantine et al. (2008) reported that accounting education was too focused on the Certified Public Accountant (CPA) and the Association of Chartered Certified Accountants (ACCA) examinations. Ballantine et al. (2008) justified that business education should also be able to develop analytical and conceptual thinking to prepare the students for their future career. However, Cheesman et al. (2010) reported that little was known about the pedagogy and resources to enhance business education. Additionally, there seems to be too little attention done by business schools to develop students' analysis and critical thinking skills (Ortenblas et al., 2013). Ortenblas et al. (2013) also indicated that there were minimal studies on university accounting and business students' learning approaches.

Consecutively, Tweddell et al. (2016) concluded that Team-Based Learning could improve students' engagement, learning satisfaction, and higher-order thinking and application skills in the future workplace. Also, Whitley et al. (2015) studied the development, preparation, implementation, assessment, and evaluation processes to improve the effectiveness of Team-Based Learning. It was reported that Team-Based Learning was effective to enhance learners' involvement, class discussion, and active learning. Besides, it was also believed that Team-Based Learning could be able to generate interest among the students by encouraging them to do proper preparation before classes (Kim et al., 2016).

2.2 Team-Based Learning (TBL)

The team refers to a group of two or more people who work together with and inspire each other. Team members are reciprocally responsible for accomplishing common objectives associated with organisational goals and remark themselves as social entities within an organisation (McShane et al., 2013). On the other hand, Team-Based Learning is described as a learner-centred approach that is effective to boost students' knowledge, learning outcomes, problem-solving, and critical thinking abilities by promoting active learning in teams (Kim et al., 2016). Team-Based Learning transformation focuses on essential elements of how the learners perform best as a team with the cohesiveness that might lead the pedagogical process to a better level of educational implication by transforming groups into teams (Michaelsen, Knight & Fink, 2002).

Additionally, Barclay (2011) defined Team-Based Learning as an instructional strategy that combines traditional face-to-face instruction and social constructivism through a specific instructional sequence that starts with readiness assurance process to ensure learners' familiarities on the subject, followed by team application exercises and

eventually evaluation processes. This activity was supported by Team-Based Learning Collaborative (Team-Based Learning Collaborative, 2017) that defined Team-Based Learning as evidence-based and collaborative instructional approach that designs modules based on three cycles which are preparation, in-class readiness assurance tests, and application-focused exercises. According to Whittaker (2014), Team-Based Learning is an instructional approach that enables active learning. Team-Based Learning was believed to be able to promote self-regulation and is eagerly adaptable to the blended online learning environment. The smaller the team size, the more accountable the team members are. This method could avoid the issue of free riders in the groups in which some of the group members do not fully contribute in the group assessment (Millis & Cottell, 1998).

Team-Based Learning is a teaching and learning approach in which small groups of students interact in-class teams to apply content to simple and complex problems with the feedback of the instructor as the content expert. As the content experts, faculty played an active role in providing feedback to the students, introducing new material and challenging the students with new questions. The groups have complete freedom to manage the interactions between the members. There were four practical elements of Team-Based Learning as described by Michaelsen and Sweet (2011). These elements were strategically formed, permanent teams, readiness assurance, and application activities to develop the team and critical thinking, and eventually peer evaluation. These findings supported the four essential components of Team-Based Learning which were Groups, Accountability, Feedback, and Assignment design (Michaelsen & Sweet, 2008). Typical Team-Based Learning task was highly challenging in which 5-7 members were required in a learning team to ensure intellectual assets and liabilities among members. The instructor acted as a facilitator and was not involved directly in the Team-Based Learning activities (Michaelsen et al., 2014).

The students were required to complete three major phases of Team-Based Learning assessment which are known as Preparation, Readiness Assurance, and Application Of course Concepts phases. According to Michaelsen et al. (2014), sufficient reading assignment should be given to the students before class to prepare them for that particular learning content. After the preparation stage, the students were tested individually in the method of multiple-choice questions using Individual Readiness Assurance Process (I-RAP) Test. Subsequently, the students were required to complete the Team Readiness Assurance Process (T-RAP) Test, and Team Application Exercise (TAE) test in groups. The students were evaluated based on their I-RAP, T-RAP, and Team Application Exercises test scores. The instructor acted as a facilitator in the entire Team-Based Learning process (Whittaker, 2014).

2.2.1 The Origins and Elements of Team-Based Learning

Team-Based Learning is a teaching and learning strategy, which was initially developed by Larry K. Michaelsen over the years in the 1970s. Michaelsen was a Professor of Management who contributed his efforts by assessing and allocating the students to teams in order to turn their passive learning into active and deep learning (Tweddell et al., 2016). This approach was initially applied in business in 1970s and gradually employed in medical and nursing education (Rita et al., 2016). Michaelsen's first Team-Based Learning handbook was published in 2002 (Michaelsen, Knight & Fink, 2002). Even though after 17 years, Team-Based Learning is still being used widely, particularly in health sciences education to develop the health-care teams' critical thinking and real-life working abilities.

Surprisingly, Team-Based Learning was being used widely in health science education, not business education, although it was developed initially for business management area. Additionally, Barclay (2011) reported that Team-Based Learning is unique as it is well suited to be practised in a large classroom or even 200 students or more with just 1 instructor and is particularly useful to facilitate deep learning. The primary purpose of Team-Based Learning is to make sure that students are given the opportunity to apply and practice the concepts they learnt for that particular subject. Davidson and Major (2014) suggested that there were four essential principles of Team-Based Learning. On the other hand, Fatemah and Ferdos (2016) indicated that there were three main steps in the implementation process of the Team-Based Learning. The 3 phases of the Team-Based Learning were Preparation, Readiness Assurance, and Application of Course Concepts.

Firstly, lecturers strategically formed permanent teams. Preparation stage enabled the students to learn assigned educational contents via lecture and individual study. After that, instructors ensured their students' familiarity towards the subject through the Readiness Assurance Process. Readiness Assurance phase allowed students to sit for the test both individually and in teams. Next, in-class activities and assignment tasks were thoroughly designed in order to develop learners' critical thinking. The Application Of course Concepts period ensures students to apply the concepts learnt in the case study problem-solving processes. The last principle of Team-Based Learning is peer assessment and feedback. The application assignments should be designed based on the concept of 4-S with the significant problem, same problem, specific choice, and simultaneous report (Michaelsen et al., 2014).

Moreover, Barclay (2011) supported the four principles of Team-Based Learning by discussing the four fundamental principles of Team-Based Learning in his dissertation. The first principle described was that the permanent teams must be properly formed and managed with ideally five to seven team members who should be as diverse as possible. Secondly, the students must be made accountable, for which the key component of accountability is the Readiness Assurance Process. Peer assessment is crucial at this stage to evaluate the team members' accountabilities and contributions accurately. The feedback might derive verbally or non-verbally in the form of body language and facial expressions. In addition, group participation should also be counted as parts of the course grade to motivate the students to read and prepare for the tests. Thirdly, the team assignments must promote both learning and team development by truly promoting group interaction. Students must receive frequent and immediate feedback. The feedback comes from their test answers, team members' responses to the group discussions, and the educator's comments and guidance throughout the Team-Based Learning process. Whittaker (2014) sustained these discussions in his dissertation.

2.3 Cooperative Learning

Cooperative Learning is considered as the oldest form of group learning approach among the other group-based learning methods. This approach engages students through inquiry and group peer discussions. The students worked interdependently with 2-4 members, sometimes 5 as required by the class size to foster cooperation that would eventually cultivate desirable behaviour among the team members to achieve the learning objectives (Davidson & Major, 2014). All the team members have their role and task for their share of contribution to the team. The most significant characteristics of cooperative learning are that the students are expected to work on their own in teams without the direct and

immediate supervision of instructors. The three components of cooperative learning are lecture, individual study and jigsaw techniques (Michaelsen et al., 2014). Jigsaw Technique is an active and cooperative learning strategy that can promote cooperation, responsibility, self- confidence, and critical thinking among the team members. This technique splits the students into groups and the assignment topic into sections (Marquez, Llinas & Macias, 2017). In Cooperative Learning, all the members are expected to learn all parts of the task and work on the assigned task together as a team (Davidson & Major, 2014).

Johnson & Johnson (1999) outlined five elements of cooperative learning. The five elements of cooperative learning are as follow: -

1. **Positive interdependence.** Each student in the team relies on one another to achieve common goals. They believe that one team member cannot succeed unless all members succeed.

2. **Group accountability.** All group members are accountable to contribute and master all the materials to be learned to achieve common goals.

3. **Promotive interaction.** Group members are expected to contribute by sharing resources, help, support and encourage other members to learn.

4. **Social skills.** The team members are encouraged to develop and practice social skills such as leadership, decision-making, trust-building, and communication skills.

5. **Group processing.** Group members assess how well they are achieving their common goals and determine changes to improve themselves in the future.

2.3.1 Comparison of Team-Based Learning and Cooperative Learning

This section aims to make a comparison between team-based learning and cooperative learning. Both of these learning approaches are group learning method that works collaboratively by incorporating small group work and focuses on the tasks assigned. These methods value individual accountability and responsibility to work interdependently to achieve their shared goals (Davidson & Major, 2014).

On the other hand, cooperative learning is developed to create a conducive environment for the students to complete an assigned activity or task while team-based learning is an instructional method to enhance the students' performance by changing the course structure (Parmelee & Michealsen, 2010). Team members of cooperative learning are assigned based on their specific roles and performance in the team with the primary purpose to complete a specific task, and the team members will return to learning individually once the common goal is achieved. However, the members of team-based learning are expected to involve in all assignments, activities, and feedback to achieve learning objectives throughout the year or semester (Slavin, 2010).

According to Cornell University (2017), Team-Based Learning is one of the examples of collaborative or group work activities. Team-Based Learning activities are implemented in Collaborative Learning by firstly assigning tasks for the students to be completed before class. After that, the students' understanding will be tested via a quick multiple-choice quiz. Next, they will be seated in groups to review and discuss their answers. Both their individual and group tests scores will be recorded. Subsequently, the instructor will deliver a lecture to solve the students' misconceptions and learning gaps issues. Lastly, the students are required to complete a challenging assignment in groups to test

whether they can be able to apply theories and concepts learnt to the real-world situation (*Collaborative Learning Techniques Workshop,* 2010).

According to Leatherbury (2016), the main difference between team-based learning and cooperative learning is the role of group assignment. Each member of cooperative learning is given a specific role for his or her share of group contribution. Conversely, team-based learning does not practice role assignment in which all students are required to work as a team throughout the semester or school year as long as they are the students in that particular class. All Team-Based Learning members are expected to involve in all parts of Team-Based Learning activities and assignment.

The differences and similarities of Team-Based Learning and Cooperative Learning are summarised in Table 2.1 as follow: -

Table 2.1 Comparison between Team-Based Learning and Cooperative Learning

Team-Based Learning (TBL)	Cooperative Learning
• 5-7 members • The instructor acts as a facilitator throughout the process • Members work on all the tasks together as a team throughout the semester or school year • Ensure students to prepare before class • Enable students to apply theories/ concepts to the real-world situation • Three major phases of TBL: - ~ Preparation ~ Readiness Assurance ~ Application of Concepts • Consists of 4 elements: - ~ Group ~ Accountability ~ Feedback ~ Assignment design	• 2-5 members • Students are expected to work on their own without direct supervision of the instructor • Members are assigned based on their specific roles, and they will return to learning individually once the common goal is achieved • Learn all parts of the task and work as a team for a particular project • Consists of 3 components: - ~ Lecture ~ Individual study ~ Jigsaw techniques • Consists of 5 elements: - ~ Positive interdependence ~ Group accountability ~ Promotive interaction ~ Social skills ~ Group processing
Similarities • Stress on the importance of active learning • All are group learning methods • Focuses on the tasks assigned • Aim to achieve common goals • Encourage students to work collaboratively	

Team-Based Learning was chosen as the instructional strategy in this study because this approach was suggested to be able to produce a positive effect on learners' abilities to focus on their daily learning (Michaelsen et al., 2008). Team-Based Learning was reported by Michaelsen et al. (2014) as the foundation of the instructional philosophy of active learning. According to Parmelee & Michealsen (2010), most of the literature

about cooperative learning and problem-based learning emphasises on learning in teams, primarily due to the reason that Team-Based Learning is primarily considered as the foundation that supports group learning.

Team-Based Learning approach practices Constructivism Theory that focuses on the knowledgeable interpretation of information learned by the students (Hrynchak & Batty, 2012). This approach is aligned with the studied university's norm of actively encouraging their students to work in teams on assignment and project since 2013 as supported by the Malaysian Qualifications Framework (MQF) which developed by the Malaysian Qualifications Agency (MQA). Teamwork is well regarded as one of the top 10 listed graduate employability skills that employers look for as indicated in the 2012 and 2015 Graduate Outlook Survey published by Graduate Careers Australia (Kueh, 2013). In the Malaysian context, the Ministry of Higher education also recognises teamwork as one of the learning skills desired by the local industries when employing graduates in their organisations (National Graduate Employability Blueprint 2012-2017, 2012).

2.4 Different Perspectives on Team-Based Learning

Based on the research questions, there are few variables and measures to be investigated in this study. They include students' perceptions of Team-Based Learning, methods and strategies to improve Team-Based Learning, and the effects of incorporating Team-Based Learning on the students' learning outcomes.

2.4.1 Learners' Perception towards Team-Based Learning

In this study, learners' perception refers to the students' willingness to accept Team-Based Learning as their teaching and learning tools at the university level to enhance their teaching and learning processes. Rita et al. (2016) indicated that Team-Based Learning could effectively improve the performance of hospital management students in which most of the students prefer Team-Based Learning sessions than the traditional lecture. However, little research on students' reactions and perceptions towards Team-Based Learning in tertiary education was found (Schmid, 2008).

Also, a cross-sectional study was conducted by Gryka et al. (2016) to identify the differences in students' perceptions and confidence in Biochemistry concepts using Team-Based Learning format compared to the traditional lecture method. The respondents were required to complete The Biochemistry Questionnaire in the pre- and post- semester. However, the researchers indicated that further refinement is required for the survey instruments in the future. The findings indicated that the Team-Based Learning was well accepted by the Pharmacy students in which they felt that Team-Based Learning could enhance their confidence in learning Biochemistry subject.

Additionally, Arshad, Hawanum, Juridah, and Sharifah Zainab (2015) also carried out a survey in Malaysia context to determine the students' receptiveness towards Team-Based Learning and to suggest a tentative model for the implementation of Team-Based Learning in a university-level teacher education course. The results revealed that Team-Based Learning was positively accepted in teacher education in Malaysian universities. Moreover, Remington et al. (2017) assessed the students' perceptions and attitudes towards Team-Based Learning using written self-reflection method and narrative questions. They reported that Team-Based Learning was effective in enhancing lifelong learning,

teamwork skills and the knowledge and application of Pharmacotherapeutics Course. Nevertheless, a self-administered survey was also distributed to the participants, and the findings indicated that Team-Based Learning could be able to cultivate higher-order cognitive skills among social work students (Macke, Taylor, Tapp & Canfield, 2015).

Furthermore, Fatemeh and Ferdos (2016) also conducted Team-Based Learning among 20 nurses who attended a nursing documentation workshop in Iran. The respondents' experiences and perceptions about Team-Based Learning were examined by using both interviews and observations methods. The nurses' respondents were satisfied with the Team-Based Learning activities and viewed Team-Based Learning as an effective strategy to improve their skills and knowledge. Besides, 19 pharmacy educators were chosen to participate in a series of individual semi-structured interviews to investigate their perceptions and experiences in Team-Based Learning (Tweddell et al., 2016). The participants perceived Team-Based Learning as an effective approach to benefit students' learning, especially in the developing of transferable skills. However, it was argued that the findings might be affected by the personal biases as the interview sessions were conducted by the researcher herself in which this might influence the participants' responses (Tweddell et al., 2016).

2.4.2 The Effects of Team-Based Learning on Learning Outcomes

Learning outcomes is the achievement to accomplish something successfully, especially using effort, skill, practice, or perseverance (The American Heritage Dictionary of the English Language, 2000). Whitley et al. (2015) emphasised the importance of learning outcomes in assisting the students to focus on their provided reading materials during the preparation phase. Learning outcomes are statements that specify what a learner should be able to know or do at the end of the lesson because of the learning

activities (Lesch, 1995). According to Michaelsen and Sweet (2011), Team-Based Learning is effective in improving students' test performance by promoting both team development and critical thinking skills. Kim et al. (2016) described team-based Learning as a learner-centred approach that is effective to improve students' learning outcomes, problem-solving and critical thinking abilities through active learning in teams.

These findings were supported by Bleske, Remington, Wells, Klein, Guthrie, Tingen, Marshall & Dorsch (2016) who also found Team-Based Learning as an effective pedagogy to improve the students' learning outcomes, particularly in performing higher-order tasks. Generally, Sisk (2011) reported a positive relationship between the students' satisfaction level, participation, and their academic performance in Team-Based Learning. Nevertheless, River et al. (2016) reported that the study and evidence regarding the effectiveness of Team-Based Learning in enhancing the students' preference and learning outcomes were minimal.

Furthermore, Woerkom and Croon (2009) were surveyed among 1107 respondents to investigate the relationships between team-based activities and team performance. However, the survey failed to conclude the causality between the variables. Bleske et al. (2016) to assess the students' learning outcomes after Team-Based Learning activities also administered another survey. Nevertheless, this study was limited to only 30 respondents in which only six topics were covered in the course. Eventually, the students' respondents were requested to complete a Self-Care Questionnaire by Frame, Gryka, Kiersma, Todt, Cailor, and Chen (2016) in order to assess changes in student confidence and performance after the implementation of Team-Based Learning activities. All the findings have shown that the students' learning outcomes and confidence in performing higher-order and critical thinking tasks increased with Team-Based Learning sessions.

Moreover, mixed methods research that involved both surveys and interview was carried out among 104 Human Resource Management students and 2 lecturers to determine the benefits of Team-Based Learning towards the students' learning outcomes, motivation, and enjoyment (Huang & Lin, 2017). However, the richness of qualitative data was limited as it was only being conducted to confirm the quantitative results. Huang and Lin (2017) carried out a mixed methods research by incorporating Team-Based Learning in business education for Human Resource Management subject. Positive relationships were found among the learners' motivation, enjoyment, learning outcomes, and their perceived team members' contributions. The study reported that the students' learning enjoyment, motivation and outcomes could be improved by increasing the effectiveness of Team-Based Learning in the classroom. Learners' learning enjoyment and motivation in Team-Based Learning classroom were identified to be two of the most critical factors that could boost their learning quality and experience. Subsequently, their team members' contributions to the group tests and group discussion were also believed can be able to increase the students' engagement in Team-Based Learning.

Additionally, experimental research was carried out among 63 undergraduate nursing students by randomly assigning the students into Team-Based Learning group and control group. The purpose of the study is to determine the effects of Team-Based Learning on the students' learning outcomes and problem-solving ability in which a problem-solving ability questionnaire was distributed at the end of the study (Kim et al., 2016). This study validated that Team-Based Learning is effective in promoting problem-solving skills and clinical performance of Korean nursing students. However, it was reported that randomised controlled research could not be able to fully measure the students' responses on Team-Based Learning in which qualitative observation method should also be incorporated into the study.

According to Sisk (2011), most of the researches done on Team-Based Learning were descriptive, not experimental. Therefore, high-quality experimental research was conducted to investigate the effects of Team-Based Learning on the students' examination scores and their abilities to work well in groups. This study demonstrated that students in Team-Based Learning classes performed well in the examinations and they have greater ability to work in groups. Subsequently, Rita et al. (2016) also conducted quasi-experimental research on 25 undergraduate management students. This study aimed to identify the students' satisfaction level towards Team-Based Learning and their test scores after the implementation of Team-Based Learning lecture sessions. This research indicated that Team-Based Learning could effectively improve the performance of hospital management students in which most of the students prefer Team-Based Learning sessions than the traditional lecture which was indicated via their test scores. There was a significant improvement in their test score after the Team-Based Learning sessions compared to the traditional lecture sessions.

2.4.3 Methods and Strategies to Improve Team-Based Learning

The researchers proposed that the Team-Based Learning teams should consist of diverse members with the diverse cultural background and different abilities, academic achievement, personalities, and learning styles to encourage various ideas and perspectives (Frame et al., 2015). In addition, the lecturer should act as a facilitator to monitor the Team-Based Learning processes and promote critical thinking by encouraging self-directed learning. However, the lecturer should not provide too much direction to the students during the team application exercises but instead acts as facilitators to build their

team cohesiveness (Whitley et al. 2015). Scaffolding method is recommended by providing more direction at the beginning of the Team-Based Learning session than the end. The lecturer's responsibility diminished as the students begin to understand the concepts.

Nevertheless, River et al. (2016) were presenting the values of incorporating technology into Team-Based Learning. Surprisingly, the findings have shown that students' acceptance level for educational technology was relatively low. Additionally, the possible barriers to effective implementation of technology to Team-Based Learning such as technical problem, poor time management, and inadequate technical skills for online learning were identified. Moreover, Pauleen et al. (2004) were also proposed the extensive use of Blackboard web-based learning management system in the preparation stage to ensure better Team-Based Learning experiential learning. Besides, there was also inadequate literature on the effectiveness of technology in enhancing Team-Based Learning approach and the strategies to improve students' learning with the assistance of educational technology (River et al., 2016).

Furthermore, web-based technology was also being recommended by Whitley et al. (2015) as practical tools to enhance Team-Based Learning. The researchers proposed the usage of video clips and Learning Management Systems (LMS) such as Blackboard to improve preparation phase of the Team-Based Learning process. Consequently, the electronic audience response system (Clickers) was suggested to replace the iRAT while an open source program called Team-Based Testing (TBT) was proposed to replace the IF-@ Forms for tRAT. Team-Based Learning has been verified to be highly effective in the conventional classroom and predicted by Whittaker (2014) to be efficient in blended online learning courses as well. On the other hand, a review of published Team-Based Learning research was done by River et al. (2016) in various databases. This study aimed

to examine the effectiveness of blended- Team-Based Learning in health education by incorporating technology into the learning processes. However, this study was limited to only nine reviews.

The study conducted by Whitley et al. (2015) indicated that the instructors should not provide too much direction to the students during the team application exercises but instead acts as facilitators to build their team cohesiveness. Immeasurable words such as 'understand' and 'know' must be avoided while writing the learning outcomes for the unit. Besides, the intended learning outcomes should also align and consistent with the teaching and learning activities and assessment tasks. Further, a good learning outcome is expected to include all four types of factual, conceptual, procedural, and metacognitive knowledge (Blumberg, 2009).

Additionally, Michaelsen et al. (2014) emphasised the significance of group discussion and presentation in Team-Based Learning. They reported that group assignments would only be effective by promoting discussions or even inter-teams' discussions while solving the tasks assigned. This assessment is crucial to ensure intense learning and quality thinking among the students. It was believed that inter-teams discussion could develop an intellectual and emotional foundation for more vigorous and theoretically rich exchange.

2.5 Methodological Issues

This section outlines a variety of issues related to research designs, analyses, and methodologies of Design-Based Research (DBR) which was determined as the proper research design to develop a Team-Based Learning intervention. Majgaard (2011) defined Design-Based Research as a branch of educational research that makes use of the design of educational interventions to develop learning theories. Design-Based Research

is a methodological approach that focuses on solving complex educational problems in a defined setting to develop advanced learning theory (Siko, 2012) and this process is iterative in nature (Hung, 2011).

Design-Based Research is typically carried out using mixed methods that involve both quantitative and qualitative studies. This method produces vast amounts of data that would lead to the risk of Bartlett Effect (Brown, 1992). Bartlett effect concerns on the issue of bias during the process of selecting the data to analyse that might affect the validity of Design-Based Research. Consequently, the researchers should prevent selection bias by open to serendipitous findings, always relate their studies to relevant theories, and reveal research methods and findings to encourage professional critiques.

Other than that, Bartlett Effect, Brown (1992) also indicated the risk of the Hawthorne effect in design-based research. Hawthorne Effect is also known as the Observer Effect in which the respondents improve their behaviour due to their awareness of being observed by the researchers and practitioners. On the other hand, it was also believed that the Hawthorne Effect could improve learning indiscriminately. However, Shavelson, Phillips, Towne and Feuer (2003) reviewed that Design-Based Research was too relying on narrative accounts to claim unwarranted findings. Therefore, a combination of both quantitative and qualitative methods can verify the validity of the information being collected in the study. In addition, a pilot study is carried out to test the feasibility of this research and the reliability of the Team-Based Learning questionnaire (Creswell & Clark, 2007).

2.6 Theoretical Framework

Theoretical Framework is the structures that reveal an understanding of concepts and theories that are believed to be relevant to the research topic and any other relevant knowledge in a broader perspective (Sinclair, 2007). Based on the literature reviews, there are few theoretical approaches of Team-Based Learning. Many studies intended to investigate the effectiveness of Team-Based Learning as an active teaching and learning approach. Theoretical Framework provides the rationales for the assumptions and predictions made about the research methodology and the relationship among the study variables.

Theories describe how the world works and why it works in the way, it does whereas frameworks are just like the foundation that keeps the theories stable. Theories have their ways of explaining why and how learning takes place (Creswell, 2013). The concept of team-based learning was developed in the 1970s where Michaelsen did extensive research in its application in learning. Team-Based Learning model was grounded in Constructivist's Learning Theory (Michealsen, Sweet & Parmelee, 2008). Moreover, Vygotsky's Social Constructivist Theory were found as the foundation concept of Team-Based Learning to encourage team development (Michaelsen et al., 2014). Also, Bloom's Taxonomy (Whitley et al., 2015) and KEMP's Model (Morrison, Ross & Kemp, 2004) were also integrated into this study to support the design and development of Team-Based Learning.

2.6.1 Constructivism

Team-Based Learning is typically practised in higher education as an instructional strategy to change the course learning structure and to transform small groups into teams with the main purpose to enhance teaching and learning quality (Parmelee & Michaelsen,

2010). This model is based on Constructivism Theory of learning. The theory of Constructivism stems from the Socratic approach, which suggested that learners could not make meaning of their world without receiving additional information. However, some constructivists' belief was contradicted with the Socratic approach in which they believe that learning starts as a learner construct their own meaning based on their experiences and background without accepting any additional information (Abdal-Haqq, 1998). Consequently, learners tend to construct new rules in their learning process to make sense of the world which sometimes might lead to overlapping between their own experiences and the additional information received (Schunk, 2008).

Constructivism learning approach allows the students to regenerate the experiences gained with their own idea to turn out into new knowledge (Gagnon & Collay, 2006). Constructivism is crucial for a learner to generate knowledge out of their experiences. Students' cognitive development is constructed through the interaction between their experiences and their ideas, instead of the exam-oriented curriculum. The students involved actively in the learning process in order to construct their understanding of any new idea learnt (Aldoobie, 2015).

2.6.2 Vygotsky's Social Constructivist Theory

Additionally, Anderman and Maehr (1994) discussed the significance of social and motivational constructivism as two essential elements of Team-Based Learning. As a result, Social Constructivist Theory is incorporated in Team-Based Learning by constructing students' knowledge through socialisation and interaction with others. Social Constructivist Theory is the foundation of this study on Team-Based Learning.

Lev Vygotsky (1896-1934), a Russian developmental psychologist in the 20th century, developed social Constructivist Theory. Vygotsky is known as the Father of Social Learning. Vygotsky argued that educators should not just evaluate their students' abilities based on knowledge acquisition but should be more focused on their problem-solving abilities. This theory increases people aware of the importance of interactions between individuals, cultural and interpersonal that influences learning (McLeod, 2007). Tudge and Scrimsher (2003) summarised that the psychology of individuals is the result of their social encounters, including their peers and teachers.

Vygotsky proposed the sociocultural theory where adult instruction and guidance are considered essential in promoting students' cognitive development (Omrod, 2003). Based on Vygotsky's basic assumptions, a student learns by observing others through both informal conversations and formal schooling. Every culture passes along physical and cognitive tools that make daily living more productive and efficient. Thought, language and writing become increasingly interdependent in the first few years of life. Thus, Vygotsky believed that human use of speech and language to maximise their interaction with social environments. A student's complex mental processes start as social activities and progressively evolve into internal mental activities that the student can use independently. Eventually, a student can perform more challenging tasks when assisted by more advanced and competent individuals, particularly in teams (Omrod, 2014).

Leatherbury (2016) believed that when students work in a team, they develop and improve language through conversations with their team members. In this way, they can communicate with other members by asking questions, reflecting and applying information to ensure knowledge internalisation. Internalisation is a process through which learners gradually incorporates socially based activities into their cognitive processes. In

addition, dynamic assessment is also applied to Social Constructivist Theory. Dynamic assessment is a systematic assessment of a learner's potential to learn rather than the actual performance (Omrod, 2014).

Vygotsky believed in the significance of connecting the students' social interaction with valuable knowledge in their learning process. He proposed the Zone of Proximal Development (ZPD) and More Knowledgeable Other (MKO) that explains how a learner learns from others. ZPD is the range of tasks that a student can perform with the assistance and guidance of others but cannot be performed independently. On the other hand, MKO is someone, not necessarily a teacher, with a higher order of thinking ability to perform a task and can be able to understand a concept better (Leatherbury, 2016). Vygotsky assumed that some of the team members might be the MKO who could help and share information with the other members to increase knowledge. In addition, ZPD can improve students' achievement through the assistance from the instructors via scaffolding exercises. Scaffolding refers to the guidance given by subject experts to students to better perform tasks assigned in their ZPD. It specifies that students can complete their tasks with others' assistance (Omrod, 2003). Students can improve their performance through regular feedback from their teachers (Schunk, 2008). Indeed, Vygotsky posited that knowledge could be constructed through social interactions.

In this study, answer-until-correct assessment method is practised in the tests to provide immediate feedback to the students and instructor. Farland, Barlow, Lancaster and Franks (2015) found out that this assessment method could be able to increase exam scores and improve the students' perceptions of the quality of their team interaction. Rita et al. (2016) emphasised that lecturers should not be just focused on the content of Team-Based Learning activities, but instead to provide their students with the opportunities to

practice the course concepts through active learning participation to construct their knowledge based on previous learning experiences.

2.6.3 KEMP's Model

KEMP's Model is also known as Morrison, Ross, and Kemp Instructional Design Model. It is used as the framework to design this Team-Based Learning Design-Based Research. Generally, KEMP's model consists of need analysis phase, a design and development phase, and an implementation and evaluation phase (Morrison et al., 2004). The nine elements of KEMP's Model include identify instructional problems, determine learners' characteristics, perform task analysis, identify instructional objectives, content sequencing, design the instructional strategies, design and develop the instructional message, instructional delivery, and evaluation instruments. These nine elements are illustrated in Figure 2.1 below: -

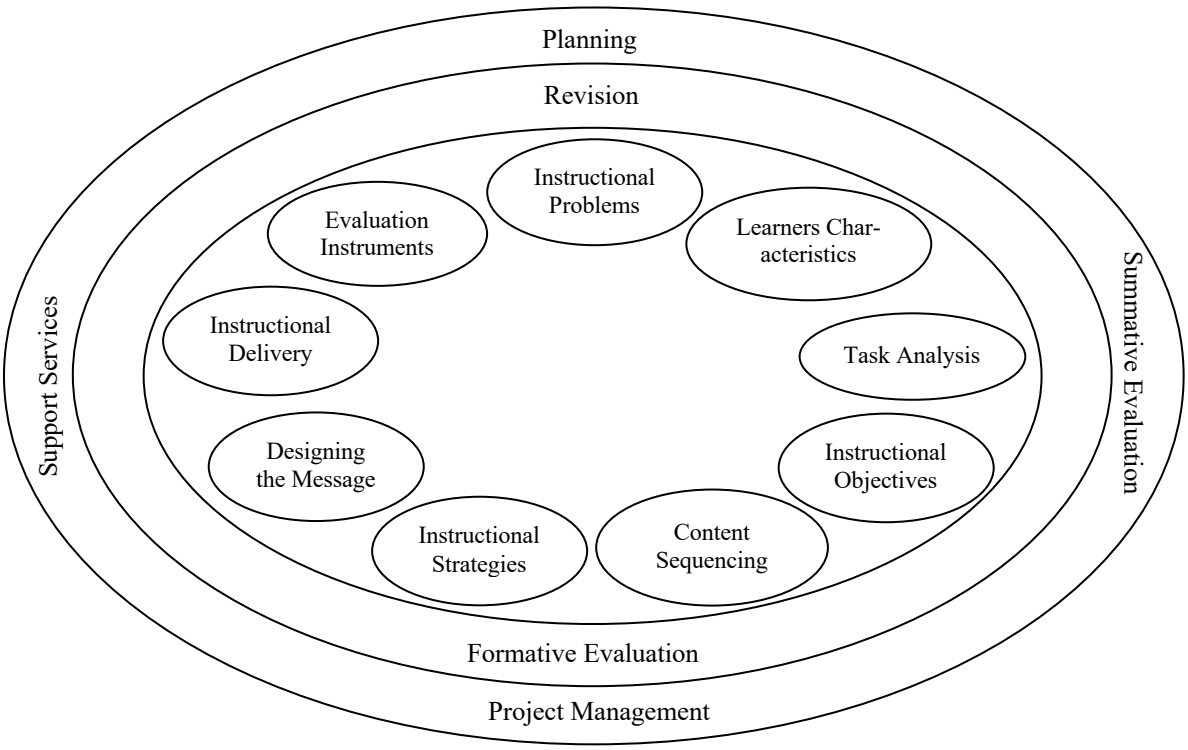


Figure 2.1 Components of KEMP's Model (Morrison et al., 2004)

KEMP's Model is circular and cyclical in nature in its instructional processes (Summerville & Reid-Griffin, 2008). KEMP's Model differs from other instructional models with its uniqueness in which this circular approach is non-linear rather than singular and independent. This model allows the researcher and practitioner to design the intervention dynamically with high flexibility by addressing the nine core elements of KEMP's Model. These elements overlap and are presented in an oval shape which means there is no one specific sequence or order to complete the nine steps (Morrison, Ross & Kemp, 2007).

The researcher might address few elements concurrently, or some elements might not be even needed, depending on the feedback collected from the respondents and the instructional processes to eventually achieve the desired objectives of the study (Obizoba, 2015). The four fundamental components of KEMP's Model are learners, objectives, methods, and evaluation. These components form the framework for systematic instructional planning. The components are considered as interrelated and could feasibly make up entire instructional design plan (Morrison et al., 2007).

KEMP's Model was used as the framework of instructional design for this study. The nine elements of KEMP's Model are described in the following section (Morrison et al., 2007).

Element 1: Instructional Problems

Firstly, the instructional needs or performance problem were identified. The designer determined if the needs involve instruction. If the need identified requires a non-instructional solution, the designer would discuss with other experts to implement the most suitable non-instructional solution.

Element 2: Learners Characteristics

Secondly, the characteristics of the target participants or those learners who were not performing as expected were identified. The information collected including the participant's general background knowledge, reading level, assumptions or work experience, depending on the instructional problems identified.

Element 3: Task Analysis

This element is one of the most crucial components of the model in which the knowledge and procedures to be included in the instruction to assist the learners to overcome the instructional problems were determined.

Element 4: Instructional Objectives

After that, the instructional objectives were identified. The instructional objectives specifically indicate what the learner must master at the end of the instructions. The objectives act as a map for designing the instruction to ensure that the learning activities developed are meant to solve the instructional problems. The instructional objectives were also essential to ensure that the strategies and assessments used were appropriate.

Element 5: Content Sequencing

Next, the sequence on how the information should be presented was also vital to assist the learners to understand and learn the knowledge in a better way. KEMP's Model believes that the learners can be able to grasp the ideas more efficiently when the information is delivered in a logical sequence.

Element 6: Instructional Strategies

This step involved designing the methods of delivering the information creatively and innovatively in order to help the students to integrate the new information with their prior knowledge.

Element 7: Designing the Message

After designing the instructional strategies, the designer designed the message by selecting and arranging the appropriate graphics, text, and pictures for the instructional activities to enhance the readability and understanding of the learners further.

Element 8: Instructional Delivery

Following, the instruction was developed and was ready to be conducted in the classroom using instructional strategies such as lecturing, distance learning, blended learning, or team-based learning in order to achieve the instructional objectives and to solve the instructional problems identified earlier.

Element 9: Evaluation Instruments

Lastly, the learners were evaluated whether they could be able to master the instructional objectives. The evaluation instruments used can be multiple-choice test items, a questionnaire, or even a complicated portfolio.

Figure 2.2 below is a summary of the theoretical framework consolidating the relevant theories applicable to this research.

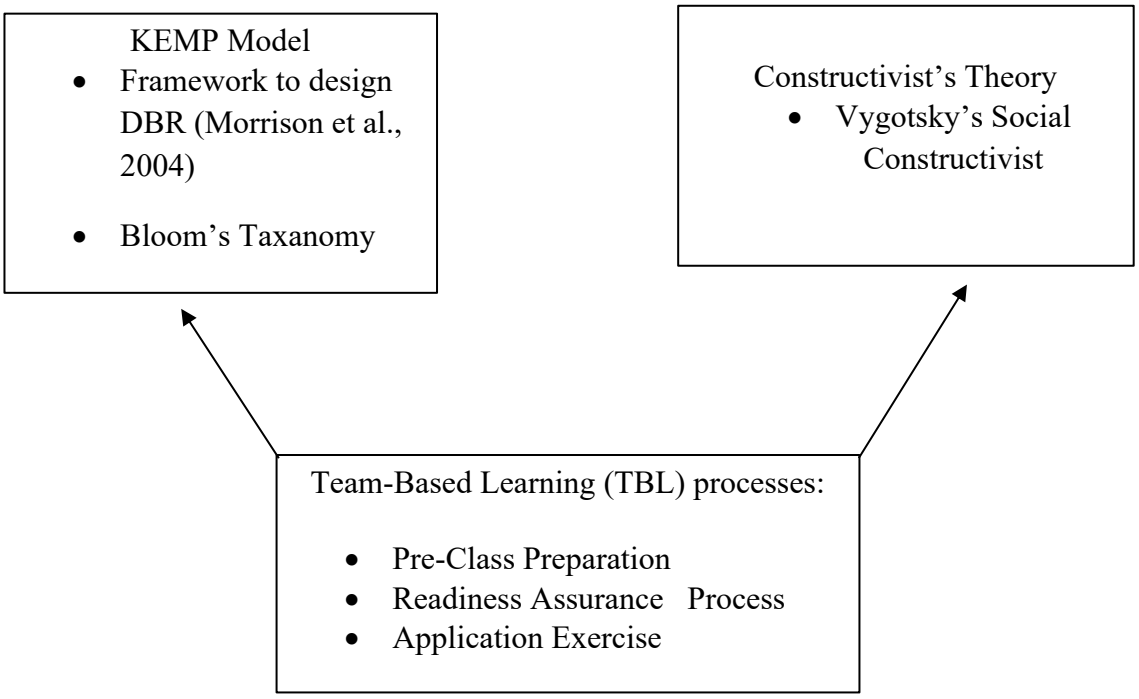


Figure 2.2 Theoretical Framework of the Study

2.7 Formulation of Conceptual Framework

Based on the review of literature in the theoretical framework, the study on this topic was conceptualised by formulating the conceptual framework. This conceptual framework was used as a guideline to guide the researcher for the entire study. Team-Based Learning approach in this study was designed and developed based on Whitley et al. (2015), Michaelsen and Sweet (2011), and Huang and Lin (2017).

The study proposed by Whitley et al. (2015) aimed to identify the advantages and challenges of Team-Based Learning, as well as the strategies to boost the effectiveness of Team-Based Learning activities, particularly in the development, preparation, implementation, assessment, and evaluation processes of Team-Based Learning. The authors suggested three phases. The first phase was initiated to develop the medical students' knowledge via independent study and pre-class assignments. The second phase was

known as the Readiness Assessment Process (RAP) in which an individual readiness assurance test (I-RAT) and a team readiness assurance test (T-RAT) was given to the students. The test questions were developed based on the lower order of Bloom's Taxonomy (Knowledge and Comprehensive levels). More complex application problem was being tested in phase 3 using the team application exercises that were developed based on the higher orders of Bloom's Taxonomy. The theoretical framework proposed by Whitley et al. (2015) is presented in Figure 2.3 as follow: -

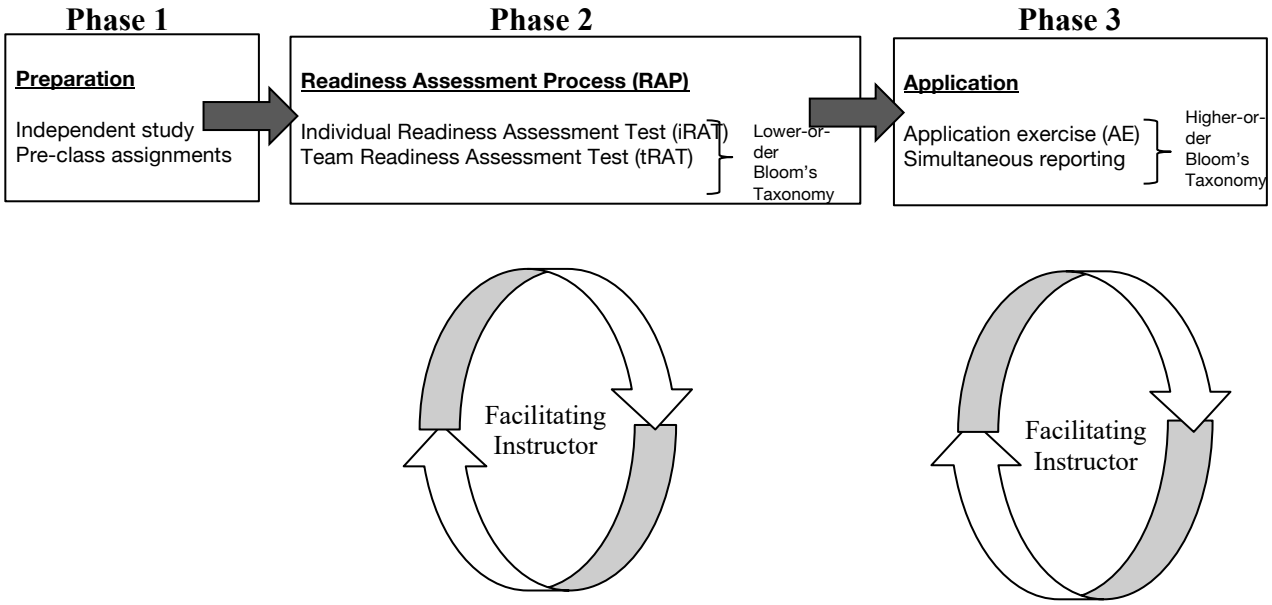


Figure 2.3 Theoretical Framework of Whitley et al. (2015)

The study conducted by Michaelsen and Sweet (2011) aimed to investigate the effectiveness of Team-Based Learning towards students based on their test performance, attendance, attitudes towards group assessment, satisfaction level towards Team-Based Learning learning, and team synergy. Michaelsen was believed to be the pioneer in Team-Based Learning teaching approach. In this framework, Team-Based Learning sequences commenced with a pre-class individual study. This approach followed by an individual test and a team test to measure the students' understanding after their pre-readings. The

team test was answered using an Immediate Feedback Assessment (IF-@) Form. The students would fill in an appeal form whenever they are not satisfied with the proposed answers. As follow up from the tests, the lecturer would briefly explain the unclear parts to the students based on their individual and team scores. Eventually, the students were required to do a higher-order application of course concepts exercise to apply their knowledge to a more complicated case study question. The Team-Based Learning activities ended with peer evaluations of the team members. The theoretical framework proposed by Michaelsen and Sweet (2011) is shown in Figure 2.4 as follow: -

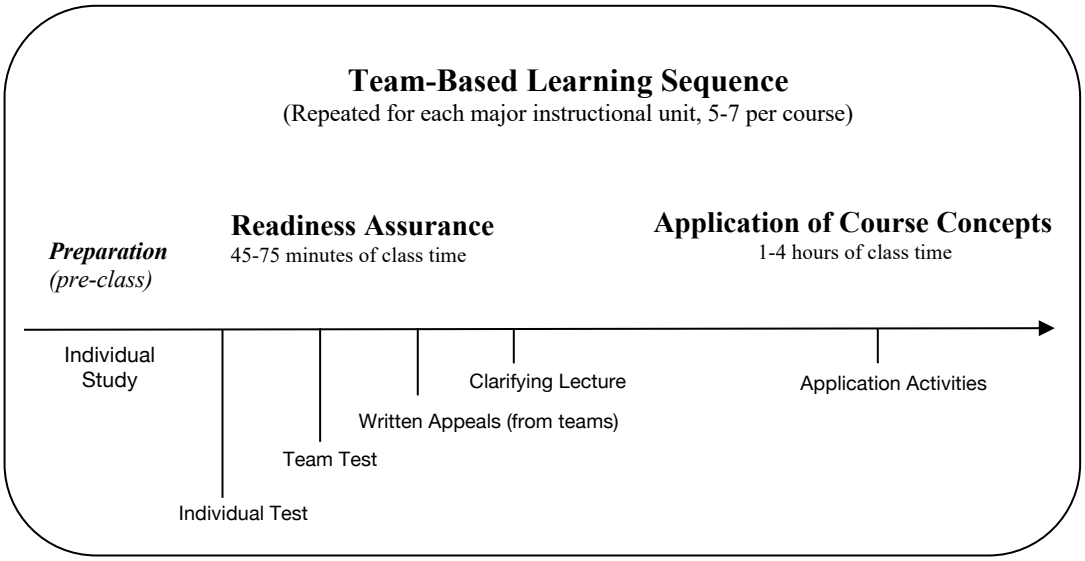


Figure 2.4 Theoretical Framework of Michaelsen and Sweet (2011)

Huang and Lin (2017) suggested the theory of flipping business education. This study aimed to incorporate flipped learning in conjunction with Team-Based Learning in Human Resource Management (HRM) classrooms. Mixed methods research were implemented in this study to determine the effects of Team-Based Learning on the learners' motivation to learn, learning enjoyment, and learning outcomes. The researchers reported

that learning in small groups with team members is one of the most effective teaching approaches to promote active learning, particularly with the assistance of web-based technology.

In conjunction with the phenomenon of the globalisation process, higher education worldwide is designing a new business curriculum to ensure alignment between the needs of contemporary instructional approaches and the workplace competencies. Consequently, business schools have become more innovation-oriented nowadays to facilitate business students via team learning activities. They believed that quality business curriculum could provide more opportunities that are significant for the students to apply their knowledge and skills in the evolving organisational and business environment of Human Resource Management (Huang & Lin, 2017).

Pre-class activities, in-class activities and post-class activities were suggested in the flipped classroom- team-based learning (FC-TBL) activities. The pre-class process required the learners to watch videos and complete assigned cases and assignments by incorporating both individual and Team-Based Learning in order to prepare the students before class. After that, the learners would undergo in-class activities with their instructors' guidance in order to allow the students to organise, apply and share their ideas in teams. Finally, the learners would involve in post-class activities by sharing their ideas and knowledge online via Facebook supported online discussions both individually and in teams.

2.8 Conceptual Framework

Conceptual Framework is the outline of possible courses of action and methodology in research to indicate a preferred approach to a research idea and thinking (Yosef, 2009). This conceptual framework was used as a guideline to guide the researcher for the entire study. The figure below shows a visual representation of the elements of Team-Based Learning in this study. The four main elements of Team-Based Learning in this research were needs analysis, design and development, implementation, and evaluation. The four elements were derived from the nine elements of KEMP's Model that was incorporated systematically in this study. The conceptual framework of this study is illustrated in Figure 2.5 as follow: -

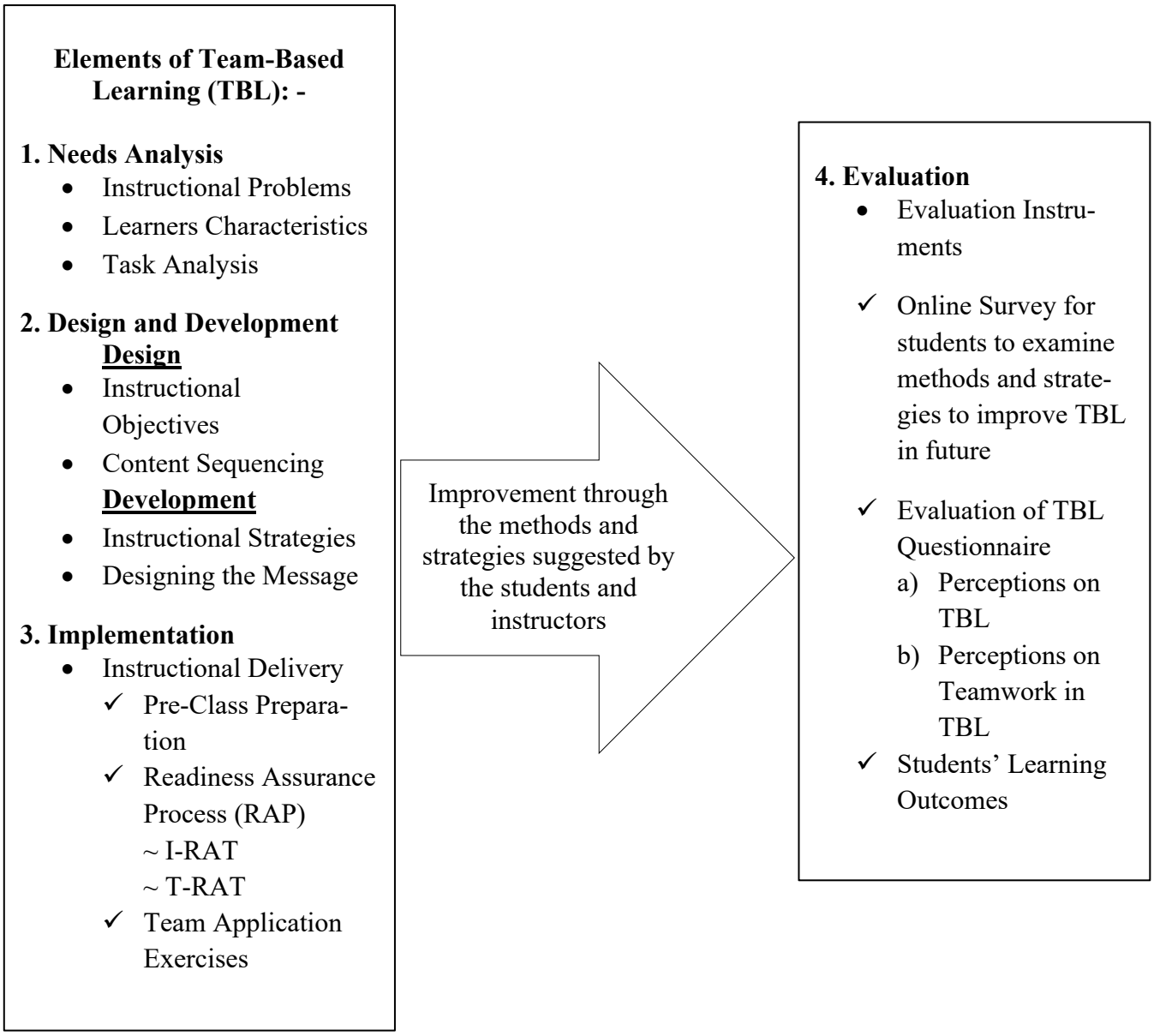


Figure 2.5 Conceptual Framework of Team-Based Learning (TBL) by Incorporating the KEMP's Model

Based on the KEMP's Model, the elements of Team-Based Learning approach include Needs Analysis, Design and Development, Implementation, and Evaluation. As mentioned earlier on, higher education students were facing poor engagement and interaction issues. Most of them were lack of higher-order thinking abilities such as problem-

solving and critical thinking skills. Hence, Team-Based Learning approach is needed because it is firmly believed that Team-Based Learning activities are student-centred learning approach that can be able to cultivate higher-order cognitive skills among the students and increase their engagement in class to replace the traditional lecture method. The students' learning characteristics and the assessment tasks involved in this subject were also identified. Following, Constructivism Theory and Vygotsky's Social Constructivist Theory were applied to design and develop the Team-Based Learning activities by concerning the learning outcomes, content sequencing, instructional strategies, and designing the messages of this particular subject.

There are three phases in the implementation of Team-Based Learning which include pre-class preparation, readiness assurance process, and application process. Independent study based on the teaching and learning materials posted in the Blackboard Learning Management System is required at the pre-class preparation stage. Subsequently, the Individual Readiness Assessment Test (I-RAT) and Team Readiness Assessment Test (T-RAT) were conducted respectively in the Readiness Assurance Process (RAP). Eventually, case study team application exercises were carried out in the application process. The RAP tests questions were created based on the lower order of Bloom's Taxonomy whereas the team application exercises questions were designed based on the higher order of Bloom's Taxonomy. The unit instructor acted as a facilitator in the entire Team-Based Learning instructional process.

The last element of the Team-Based Learning process is Evaluation. A Google online Survey was conducted among the students to examine the methods and strategies to improve Team-Based Learning in future study after the implementation of the Team-Based Learning approach. The dependent variables in this study are students' perceptions

of Team-Based Learning and their learning outcomes after the implementation of the Team-Based Learning approach. The students' perceptions of Team-Based Learning were assessed using an Evaluation of Team-Based Learning Questionnaire. Their perceptions of the Team-Based Learning and teamwork in the learning approach before and after the implementation of the Team-Based Learning activities were evaluated using the questionnaire. Additionally, the students' learning outcomes were measured based on their total scores of I-RAT, T-RAT, and team application exercises. The Team-Based Learning approach would be further improved based on the methods and strategies suggested by the students and instructors' participants during and after the Team-Based Learning practice.

2.9 Summary

The previous study on Team-Based Learning and related theories are discussed in this chapter. This chapter is crucial as references and supporting readings for determining the objectives of this study. The literature reviews also act as a guideline for determining the research instrument and research design. The next chapter discusses the research methodology of the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the development of this research and emphasis on the research design, conceptual framework, population and sample, research instrument, data collection procedures, and the proposed framework for data analyses.

3.1 Research Design

A research design explains the plan of actions for data collection, data analysis, and evaluation (Sekaran & Bougie, 2010). This study is aimed at designing and developing the Team-Based Learning approach to enhance business students' learning gains in a private international higher education institution in Malaysia. This study involves mixed methods of design-based research that involves both qualitative and quantitative methods data collection. In this study, the design and development of Team-Based Learning were conducted in three phases, namely Phase 1: Needs Analysis; Phase 2: Design and Development and Phase 3: Implementation and Evaluation. The qualitative approach was used to answer Research Questions 1, 2 and 3. On the other hand, the quantitative method was used to answer Research Questions 4 and 5.

3.1.1 Design-Based Research

It was suggested that Design-Based Research (DBR) enables educational researchers to solve instructional problems by using and develop teaching and learning interventions in a consistent and reliable setting (Hung, 2011). In addition, Wozniak, Pizzica & Mahony (2012) stated that Design-Based Research is best to investigate real-world educational problems as it allows researchers to work through long-term research cycles of analysis, development, evaluation, and reflection. Morgan (2013) also agreed that Design-Based Research is a useful way for educators who are aiming to both confirm and innovate in their teaching practice.

Also, a Design-Based Research approach was practised by Kim, Suh and Song (2015) to assist the students to engage in self-directed learning through creative designs of iterative processes. The researchers proposed six stages of Design-Based Research processes. The six stages suggested by Kim et al. (2015) include diagnosing the learning problem, designing learning activities, facilitating in-class activities, evaluating students' interactions and design artefacts, specifying learning evidence over three split activities, and finally recommending the next steps to improve the continuous iterative research processes. The most essential aspects of Design-Based Research are the refinement of the intervention and the development of new design principles and theories to improve the entire teaching and learning approach for a sustained change (Brown & Taylor, 2016).

The primary objective of Design-Based Research is to determine real-world educational problems followed by potential solutions to solve the problems. Design-Based Research not only focuses on testing hypotheses but emphasise on the iterative refinement of the instructional approaches by creating new theories and strategies to address the educational problems (Thein, Barbas, Carnevali, Fox, Mahoney & Vensel,

2012). Design-Based Research differs from action research in their purposes and the roles of researchers and educators in the study (Reeves, Herrington & Oliver, 2005). Design-Based Research aims to generate theories to solve instructional problems while action research focuses on naturalistic observation to study how the students learn, not so much on the intervention (Wang & Hannafin, 2005). Besides, researchers typically act as both researchers and designers in Design-Based Research by collaborating with other practitioners and instructor participants whereas action research is usually conducted by the instructor alone, without the involvement from the experts or research and design team (Anderson & Shattuck, 2012).

Due to the importance of student-centred learning and responding to a need to examine students' engagement in learning, this Design-Based Research is carried out to explore Team-Based Learning as a new approach toward improving teaching and learning process in higher education. However, Hung (2011) reported that not much research in educational settings; particularly in team-based learning context had been conducted by using Design-Based Research method. Design-Based Research approach is different from true experimental research in which its main objective is to investigate, instantaneously, the intervention and the environment that supports the intervention. Hence, Design-Based Research is mainly conducted to improve educational practices. However, true experiment aims to segregate the effects of the independent variables on the dependent variables by manipulating the independent variables and assigning the participants into control and treatment groups (Collins, Joseph & Bielaczyc, 2004).

Design-Based Research emphasises on understanding a learning theory while advancing on the teaching and learning practices. Design-Based Research is a practical research methodology that could fill the gap between educational research and real-world

educational issues (Anderson & Shattuck, 2012). Typically, Design-Based Research involves both quantitative and qualitative data (DiSessa & Cobb, 2004). A combination of both quantitative and qualitative methods can verify the validity of the information being collected in the study. Qualitative research may assist the interpretation of the relationship between variables and intended to elicit more views and opinions from the respondents (Creswell, 2014). On the other hand, quantitative research allows the researchers to institute relationships among variables, but it is weak when it comes to exploring the reasons for those relationships. A qualitative study can be used to explain the factors underlying the broad relationships (Blaxter, Hughes, & Tight, 2010). Therefore, both quantitative and qualitative research methods were carried out in this study. Survey and interview methods were used for data collection in this study.

This study reported the first iteration of Design-Based Research to investigate the use of Team-Based Learning in a private international higher education institution for Human Resource Management subject in Malaysia. Refinement will be made in the second iteration of this study based on the researcher's observation; feedback and recommendations suggested by the students' participants and Team-Based Learning practitioners (Feng, Xie & Liu, 2017; Anderson & Shattuck, 2012). The refinement will be done in future post-graduates' study. According to Herrington, McKenney, Reeves and Oliver (2007), data collection process for Design-Based Research can be carried out in cycles of several weeks, few semesters, or even few years. Even though most of the literature suggested that Design-Based Research is a long-term methodology, which consists of multiple cycles, Pool and Laubscher (2016) indicated that Design-Based Research is also fitted for short-term dissertation as long as the significant phases of Design-Based Research are carried out to achieve the required outcomes. A group of students who enrolled in the unit studied in this study in Semester 1, 2018 was recruited to

voluntarily involve in the study. Any suggestions recommended by the students and findings from the evaluation after the implementation of Team-Based Learning practices will be incorporated in the future iterations to improve the Team-Based Learning intervention.

This study is a mixed methods research. According to Creswell and Clark (2007), mixed methods research design focuses on gathering, analysing, and combining both quantitative and qualitative data in a study to provide a better and more holistic understanding of a research problem or research question. This research involves designing and developing a learning environment and then evaluation of the environment, and hence employs a design-based research methodology. This research is a multiphase mixed method design to examine a problem or topic through a series of phases or separate studies (Creswell and Clark, 2011). Firstly, qualitative data was collected to answer Research Questions 1 and 2. Subsequently, qualitative data was gathered to answer Research Questions 4 and 5. Finally, both quantitative and qualitative data was obtained for Research Question 3.

3.1.2 Qualitative Method

Both quantitative and qualitative approaches were used in this study. The qualitative approach was implemented in which interview method was chosen to investigate the current instructional issues faced by the business students based on both student and instructors' perspectives. In this study, interviews and online open-ended survey methods were also used to examine further individual students and educators' views for the methods and strategies to improve Team-Based Learning based on their perceptions and experiences of conducting Team-Based Learning activities in their classroom. Semi-structured, comprehensive interview questions and online open-ended

survey questions were designed to answer Research Questions 1, 2 and 3. Interviews and open-ended questions approaches were expected to collect richer data by gaining in-depth insight into the respondents' perceptions and values regarding the Team-Based Learning method.

3.1.3 Quantitative Method

Additionally, the quantitative method was also used to answer Research Questions 4 and 5 based on Evaluation of Team-Based Learning Questionnaire. In this study, the quantitative method intended to examine how the business students in a private international higher education institution perceive the practice of Team-Based Learning and the relationship between the students' perception towards Team-Based Learning and learning outcomes among business students in the studied higher education institution.

All the 36 students who enrolled in a Human Resource Management unit in a private international higher education institution in Sarawak were invited as respondents to fill in the questionnaire. However, only 30 students were agreed to participate as the respondents in this study voluntarily. Four of the students were refused to participate in this study due to privacy issue while the other two students were not interested in research matter. In most of the ex-post facto and experimental design-based research, the sample size of 30 or more are recommended (Roscoe, 1975; Gay & Diehl, 1992; Hill, 1998). The sample size, although only 30, is just sufficient for a mixed methods research as there are both qualitative and quantitative elements.

3.1.4 KEMP's Model

KEMP's Model was selected as the framework to design this Team-Based Learning Design-Based Research. Generally, KEMP's Model consists of need analysis

phase, a design and development phase, and an implementation and evaluation phase (Morrison et al., 2004). The nine elements of KEMP's Model include identify instructional problems, determine learners' characteristics, perform task analysis, identify instructional objectives, content sequencing, design the instructional strategies, design and develop the instructional message, instructional delivery, and evaluation instruments. KEMP's Model was chosen because it is circular and cyclical in nature (Summerville & Reid-Griffin, 2008). The researcher dynamically designed the Team-Based Learning intervention with high flexibility by addressing the nine core elements of KEMP's Model. The researcher may address few elements concurrently, or some elements may not be even needed, depending on the feedback collected from the respondents and the instructional processes to eventually achieve the desired objectives of the study (Obizoba, 2015).

3.2 The Design of Team-Based Learning

In this study, the design and developmental approach for the Team-Based Learning strategy for a private international higher education institution in Malaysia was conducted in four phases, namely; Phase 1: Needs Analysis, Phase 2: Design and Development, and Phase 3: Implementation and Evaluation. KEMP's Model was used as the framework of instructional design for this study. Both qualitative and quantitative methods were used to answer the proposed research questions. Table 3.1 shows the phases involved in the instructional design of the Team-Based Learning activities conducted in this study.

Table 3.1 Phases Involved in the Instructional Design of Team-Based Learning Activities

Phases in Team-Based Learning	Elements in KEMP's Model	Description of the Design Process
Phase 1: Needs Analysis	Instructional Problem	Current Instructional Problems faced by the business students based on the findings of interviews with the students and instructor respondents: - • Teaching issues • Learning issues • Practical exposure issues • Personal effort issues
	Learner Characteristics	The students' characteristics that might affect the instructional decisions can be retrieved via the university Allocate Plus Student Information System before the new semester commences. • Gender • Ethnicity and cultural back-ground • Program of study • Academic year
Phase 2: Design and Development	Task Analysis	The subject contents and task components were identified based on the syllabus and curriculum set by the main campus as follow: - • Individual Essay • Tests • Group Report • Group Presentation

Table 3.1 (Continued)

Phases in Team-Based Learning	Elements in KEMP's Model	Descriptions of the Design Process
	Instructional Objectives	1. Identify and discuss the drivers of diversity in the workplace and describe how diversity impacts business practices through collaborative teamwork. 2. Analyze various diversity management practices in terms of their theoretical rationale. 3. Develop an enhanced sensitivity, openness and respect for human diversity including gender, culture, ethnicity, religion, nationality, and other visible and invisible dimensions of diversity. 4. Demonstrate awareness of diversity issues in developing and implementing people management policies and practices, in particular HRM functional areas, in a diverse workplace. 5. Communicate effectively as a professional and function as an effective leader in teamwork or as a member of a diverse team.
	Content Sequencing	The learning contents were taught in building block sequences by ensuring the students build up solid theory knowledge before they move up to higher-order thinking. The building block is the foundation of learning before the application of theory.
	Instructional Strategies	• Tests assessments will be conducted using Team-Based Learning approach in Week 5, 8, and 11.

Table 3.1 (Continued)

Phases in Team-Base Learning	Elements in KEMP's Model	Descriptions of the Design Process
		• Based on Constructivism and Social Constructivist's Theory as the fundamental theories of practice.
	Designing the Message	The TBL activities are designed based on: - • KEMP's Model • Bloom's Taxonomy • 4 stages of TBL
Phase 3: Implementation and Evaluation	Instructional Delivery	• Tests assessments will be conducted using Team-Based Learning approach in Week 5, 8, and 11. • Based on Social Constructivist's Theory as the fundamental theories of practise. • Four stages of TBL: - a) Pre-Class Preparation b) RAP Tests c) Team Application Exercises
	Evaluation instruments	• Google Online Survey to determine students' suggestions on methods and strategies to improve TBL in future • An Evaluation of TBL Questionnaire: - a) Perceptions on TBL b) Perceptions on Teamwork in TBL • Students' Learning Outcomes

The nine elements of KEMP Model in this study are described in detail in the following section: -

Element 1: Instructional Problems

Needs assessment, goal analysis and performance assessment were carried out at the beginning of the Design-Based Research to determine the instructional problems faced by business students in a private international higher education institution in Malaysia. Based on the interviews with business students and instructor respondents, students in higher education were facing educational issues such as poor interaction and engagement in class, and lack of problem-solving, critical thinking and other higher-order thinking skills. The problem statements and research goals for designing the intervention were discussed in Chapter one.

Element 2: Learners Characteristics

The students' characteristics that might affect the instructional decisions such as their gender, ethnicity and cultural background, the program of study, and academic year were identified. All the students' information can be retrieved via the university Allocate Plus Student Information System before the new semester commences. All the students who enrol for the unit studied in this research in Semester 1, 2018 were chosen as the research respondents.

Element 3: Task Analysis

The subject contents and task components were identified based on the syllabus and curriculum set by the main campus. This selected unit aims to sensitise students to the importance of fostering an inclusive workplace that manages and leverages diversity in all its forms. This unit focuses mainly on how people management policies and practices

facilitate organisational effectiveness through recognising, valuing and accommodating employee diversity. Individual Tests (30%) and Group Tests (15%) were assigned to be conducted using the new Team-Based Learning approach.

Element 4: Instructional Objectives

The learning objectives were set by the main campus as well. After completing this unit, the students should be able to:

1. Identify and discuss the drivers of diversity in the workplace and describe how diversity impacts business practices through collaborative teamwork.
2. Analyze various diversity management practices in terms of their theoretical rationale.
3. Develop an enhanced sensitivity, openness and respect for human diversity including gender, culture, ethnicity, religion, nationality, and other visible and invisible dimensions of diversity.
4. Demonstrate awareness of diversity issues in developing and implementing people management policies and practices, in particular, HRM functional areas, in a diverse workplace.
5. Communicate effectively as a professional and function as an effective leader in teamwork or as a member of a diverse team.

Element 5: Content Sequencing

The learning contents were taught in building block sequences by ensuring the students build up solid theory knowledge before they move up to higher-order thinking. The building block is the foundation of learning before the application of theory. It is essential

because our students' thinking is usually not entirely accurate and may contain misconceptions or unstable preconceptions that the instructor must issue for students to accommodate new learning contents fully.

Element 6: Instructional Strategies

After further discussed with the expert instructors in the university, it was decided that the tests assessments would be conducted using Team-Based Learning approach on Week 5, 8, and 11 based on Social Constructivist's Theory as the fundamental theories of practice.

Element 7: Designing the Message

Next, the Team-Based Learning activities were designed and developed based on the framework proposed by Michaelsen and Sweet (2011), Whitley et al. (2015), and Huang and Lin (2017) in addition to KEMP's Model as the course design framework. The I-RAT, T-RAT, and Concept Team Application Exercises were developed based on Bloom's Taxonomy. Kim et al. (2016) were incorporating higher orders of Bloom's Taxonomy in the Team-Based Learning tests to improve the students' skills in applying, analysing, evaluating, and creating based on their understanding on the learning contents. Whitley et al. (2015) who prepared the readiness assurance tests based on the lower-order Bloom's Taxonomy levels whereas the team application exercises were linked to higher-order Bloom's Taxonomy levels supported this strategy. Whitley et al. (2015) developed test questions based on the lower-order of Bloom's Taxonomy (Remembering and Understanding levels). More complex application problem was being tested in phase 3 using team application exercises that were developed based on the higher order of Bloom's Taxonomy.

Element 8: Instructional Delivery

Team-Based Learning teaching and learning resources such as Blackboard Learning System, relevant videos, lecture notes, and reading materials were used in the pre-class preparation stage. This approach was followed by readiness assurance process tests and lastly team application exercises.

Element 9: Evaluation Instruments

Three multiple choices test which consists of 12 questions each and three case study questions were developed to assess the effectiveness of Team-Based Learning in improving the learning outcomes of students with different academic performance. The tests could be able to measure the degree to which the students have learned in the Team-Based Learning session. A Team-Based Learning Evaluation Questionnaire was distributed to the participants to investigate their perception towards this learning approach. An online survey on Google Forms Application was also being conducted with the students to justify the methods and strategies to improve the Team-Based Learning process.

3.3 Research Population

This study was conducted at a branch campus of a foreign university in Malaysia. According to the Malaysia University Portal, there are 47 private international higher education institution in Malaysia that work under the Private Higher Educational Institutions Act 1996 (Malaysia University Portal, 2018). The list of Malaysian private international higher education institution was compiled in Appendix E.

One of the national key economic areas (NKEAs) under the Eleventh Malaysian Plan is to increase the contribution of private education to Gross Domestic Production

(GDP) and to attract more students by 2015 (Tenth Malaysia Plan, 2010). There are only two private foreign universities in Sarawak. The university selected for this study is one of them which is located at the centre of Kuching, the capital city of Sarawak. The university presently has its student population of 4,000 who consists of local and international students from more than 60 countries such as Indonesia, Sri Lanka, Bangladesh, Pakistan, Australia, Africa, China, South Korea, Singapore, and exchange students from Denmark, Germany and Sweden.

3.4 Research Sample, Instrument and Data Collection Procedures for Phase 1

The first phase of this study was needs analysis. The needs analysis phase aimed to determine the needs of the learners by identifying the instructional issues faced by business students in a private international higher education institution in Malaysia. The analysis of the instructional issues faced by the students was done based on the focus group and one-to-one interviews findings obtained from the students and expert instructor respondents. This phase is essential to answer Research Questions 1.

3.4.1 Research Sample

The purposive or judgmental sampling method was used to select six 'At Risk' students' participants for a focus group interview and two instructor participants who are Team-Based Learning practitioners and expert instructors for the one-to-one semi-structured interviews based on knowledge of the respondents, its elements, and the purpose of the study. The participants consisted of students and practitioners from different gender, racial background, academic performance, and ability to communicate.

The student counsellor was providing a list of students who would be able to give full cooperation and honest responses throughout the study. Six students were selected

from the list based on their willingness to contribute worthwhile information and insight to the researcher regarding their instructional problems. Purposive sampling approach chosen population and samples based on their abilities to provide in-depth information and insight to the researcher concerning the phenomenon of interest in the research (Patton, 2002). The unit convenor chose these respondents, and she was sure that these six respondents would be able to give full cooperation and genuine responses throughout the study. In addition, they were even willing to participate in this research voluntarily by filling in a consent form before the study. The interviews aimed to examine current instructional issues faced by the business students.

The two instructor respondents were chosen mainly based on their willingness to contribute worthwhile information and insight to the researcher regarding the instructional problems faced by current business students as observed and experienced by them. Both of the instructors satisfied the selection criteria set by the researcher. The four criteria of selection are indicated below: -

(1) The instructors should have taught in this university for more than ten years who are considered as experienced and expert in business area;

(2) The instructors should be experienced in teaching Human Resource Management (HRM) units so that they can comment on the instructional issues faced by their students in learning the HRM unit studied in this research,

(3) The instructors should be experienced in conducting the Team-Based Learning approach so that they can share their suggestions on how to further improve this approach in the design and development phase, and;

(4) The instructors should be able to provide full cooperation and genuine responses throughout the study.

3.4.2 Research Instrument

An interview guide that consists of three open-ended questions was prepared to assist the researcher to examine the current instructional issues faced by the business students in a private international higher education institution. Among the studied areas were presented below: -

1. The instructional problems faced by the students in their studies,
2. Possible solutions that will resolve their problems and
3. The possible study support methods that may assist them in resolving their problems

3.4.3 Data Collection Procedures

According to Patton (2002), the setting of an interview is crucial to provide the respondents with a comfortable zone while sharing their learning experiences. One-to-one interview method was implemented in the researcher's office to create an interview environment that was the most conducive and comfortable for the instructor participants. All the six students participants had ever been taught by the researcher before. They were familiar with the researcher and were willing to share their experience with her sincerely.

Six students' participants and two expert instructors were selected voluntarily to participate in the focus group and one-to-one semi-structured interview sessions. The interviews aimed to identify current instructional issues faced by the business students. The interviews were initiated with handshakes and heartfelt comments of appreciation for

their involvement in these interview sessions to share their learning experiences. A respondent consent form was signed in written form, and the purposes of the interview were explained before the survey and interview. The participants were being informed that they have the right to withdraw from the research at any time after consenting. Permission was also requested to record the interview sessions for transcription purposes later.

Each of the interview sessions lasted from 5 minutes to 20 minutes depending on the respondents. Ultimately, the researcher thanked the respondents once again for their willingness to participate in this study and thanked them for sharing of their teaching and learning stories. The interviews ended with follow-up questions to determine if there anything that the respondents would like to know or add that they think was related to this study. After the transcription of the recorded interviews, the respondents were given an opportunity to review the interpretation of their feedback to the three interview questions to ensure trustworthiness.

Upon receiving the agreement of the six students' respondents and two instructor participants to take part in this study, the researcher emailed all the respondents to schedule a date and time that worked best for them. Reminders were sent via emails twenty-four hours before the scheduled interviews. The meetings with three of the students' respondents were rescheduled twice due to unforeseen circumstances. The researcher arrived at her office 45 minutes ahead of the scheduled interviews to get ready for the interviews. This action enabled the researcher to identify her perceptual biases and be prepared mentally to listen to the respondents' learning stories. The interviews started as soon as the respondents were ready.

3.5 Research Sample, Instrument and Data Collection Procedures for Phase 2

The second phase of Kemp's Model was design and development. This research was designed by adapting the approaches from previous literature. It was designed and developed mainly based on the research done by Michaelsen and Sweet (2011), Whitley et al. (2015), and Huang and Lin (2017). This study is a Design-Based Research in which the intervention was being designed and developed in collaboration with other two expert instructors in HRM discipline to discuss and negotiate its implementation. An ideal and ambitious improvement goal was set for the design. The goal could be achieved by answering the second research question.

3.5.1 Research Sample

Semi-structured interview were carried out with two expert instructors before the Team-Based Learning approach to gather data on the elements that should be incorporated into the development of the Team-Based Learning activities. These expert instructors are experienced lecturers who have been teaching in higher education for more than ten years. They are also experienced in using Team-Based Learning as a teaching and learning approach for at least five years. These two expert instructors are the respondents who were also participated in the needs analysis phase. The four criteria of selection for the expert instructors were discussed in the previous section for Phase 1.

3.5.2 Research Instrument and Data Collection Procedures

One-to-one semi-structured interviews were conducted with two expert instructors to validate the developed Team-based Learning activities module which serves as guidance for directions on Team-Based Learning activities to the instructor. Besides, the interviews were also intended to identify the elements that should be incorporated into

the development of the Team-Based Learning activities for business education in a private international higher education institution.

Four open-ended reflective questions were proposed to the instructors' respondents during the one-to-one interview sessions to determine the elements that should be incorporated into the development of the Team-Based Learning activities. The Interview Protocol and the Respondent Consent Form were attached in Appendix C and D. The interview questions were adapted from Leatherbury (2016). Leatherbury (2016) used these interview questions with high validity and reliability to investigate the preschool educators' perception and perspective towards Team-Based Learning. More questions were further proposed to the instructors during the interview sessions to stimulate their ideas to think regarding the strategies to improve Team-Based Learning practices in the future. The interview questions were as follow: -

1. What is your thought about team-based learning (TBL)?
2. What are the limitations that the Team-Based Learning process presented during the practice?
3. What are the strategies or methods suggested by you to improve the limitations of Team-Based Learning that you mentioned previously?
4. Is there anything you want to include that I may not have asked, and you feel it is vital for me to know?

3.6 Research Sample, Instrument and Data Collection Procedures for Phase 3

The last phase of the study was implementation and evaluation. After the implementation, evaluation was done to determine if the Team-Based Learning intervention could be able to solve the instructional problems and how do the students perceive this learning approach. In addition, the students also suggested the methods and

strategies to improve Team-Based Learning. The evaluation had answered research questions 3, 4 and 5.

3.6.1 Research Sample

The three faculties in this university are Faculty of Business, Design and Arts, Faculty of Engineering, Computing and Science, and Faculty of Language and Communication. Among these students, Bachelor of Business students was selected as the sample for this study. Bachelor of Business students comprise of students from six different majors include Accounting major, Finance major, International Business major, Management major, Human Resource Management major, and Marketing major. They contribute to the highest number of students for the university. They are diverse students who come from different countries, nationalities, races, ethnicities, culture, and education background.

Typically, branch campuses are expected to perpetuate the student-centred learning culture from their main campus. This culture created challenges particularly for our Malaysia students who grew up in a teacher-cantered learning environment (Ming & Alias, 2007). This higher education institution is chosen because their main campus is encouraging them to carry out Team-Based Learning actively as one of their latest instructional strategies. The researcher who is currently teaching in this university is also a member of the university Team-Based Learning research team in collaboration with their main campus. Hence, it would be desirable and helpful to propose more suggestions to improve Team-Based Learning in this university.

Reliance on available subjects sampling method was used to choose the participants by literally selecting the respondents because they were available. All the students who have enrolled in a business subject in this private international higher

education institution were automatically chosen as the respondents due to their availability. All of them were invited to participate in this study with no inclusion criteria identified before the selection of participants. 30 students have voluntarily participated in this study. In addition, they were also willing to participate in this research voluntarily by filling in a consent form before the study. This subject was chosen because it is a simulation of a business environment that requires students to apply the knowledge to different human resources contexts. This subject involves higher-order thinking skills and requires the students to integrate their prior knowledge learnt in previous subjects to master the learning content of this unit. Verbs such as analyse, develop, and demonstrate were included in the intended learning outcomes. The last learning outcomes require the students to communicate effectively as a professional and function as an effective leader in the diverse team. This component is indicated in the learning objectives of this unit as follow: -

After completing this unit, the students should be able to:

1. **Identify** and discuss the drivers of diversity in the workplace and describe how diversity affects business practices through collaborative teamwork.
2. **Analyze** various diversity management practices in terms of their theoretical rationale.
3. **Develop** an enhanced sensitivity, openness and respect for human diversity including gender, culture, ethnicity, religion, nationality, and other visible and invisible dimensions of diversity.
4. **Demonstrate** awareness of diversity issues in developing and implementing people management policies and practices in particular HRM functional areas, in a diverse workplace.

5. **Communicate** effectively as a professional and function as an effective leader in teamwork or as a member of a diverse team.

Four of the learning objectives for this unit were designed based on the higher order of Bloom's Taxonomy. The assessment structure of this unit comprises of individual tests (30%), individual essay (30%), and group assessment (40%) without final examination.

3.6.2 Research Instrument

The data collection instruments used in Phase 3 included three sets of Readiness Assurance Process Tests (RAT) and Team Application Exercises (TAE), an Evaluation of Team-Based Learning Questionnaire, and an Online Survey that comprises of three open-ended questions.

Readiness Assurance Process Tests (RAT)

The Readiness Assurance Process (RAP) Test (RAT) that consisted of 12 questions and the Team Application Exercise (TAE) that included of 3 items were conducted after the classes to assess whether Team-Based Learning can be able to improve the students' learning outcomes. Three RAP tests and TAE tests were carried out continuously throughout the semester to compare the progress of the students' performance. RAP Tests were implemented to enable the students to learn by creatively sharing their experiences and knowledge together as a team. Constructivism Learning Theory was incorporated into the implementation of RAP Tests to allow the students to regenerate the experiences gained into new knowledge. Answer-until-correct assessment method was practised in the T-RAP tests to provide immediate feedback to the students and instructor.

Two other lecturers had reviewed the questions for clarity and validity, one was the lecturer of the unit of study, and another one was the tutor of this unit.

The tests questions were attached in Appendix G. The RAP tests were prepared based on the lower-order Bloom's Taxonomy levels of Remembering (six items) and Understanding (six items).

Team Application Exercises (TAE)

TAE was implemented based on Vygotsky's Social Constructivist Theory. Vygotsky believed that knowledge could be constructed through social interactions. He proposed the Zone of Proximal Development (ZPD) and More Knowledgeable Other (MKO) that explains how a learner learns from others. Vygotsky assumed that some of the team members might be the MKO who could help and share information with the other members to increase knowledge. On the other hand, ZPD could be able to improve students' achievement through the assistance from the instructors via scaffolding exercises. The instructors' roles were expected to be diminished as students start to understand the learning concepts. The readiness assurance process tests were prepared based on the lower-order Bloom's Taxonomy levels (Remembering and Understanding) whereas the team application exercises questions were linked to higher-order Bloom's Taxonomy levels (Applying, Analyzing, Evaluating, and Creating). The TAE case studies and questions were attached in Appendix H.

The TAE tests were prepared based on the higher-order Bloom's Taxonomy levels of Applying (one item), Analyzing (one item), Evaluating (one item), and Creating (one to two items).

Evaluation of Team-Based Learning Questionnaire

The questionnaire is an efficient data collection mechanism when the researcher knows precisely what is required and how to measure the variables of interest (Sekaran, 2007). It provides an efficient and straightforward method of obtaining the needed data (McQueen & Knussen, 2002). The proposed research design was suitable to answer the research questions of this study. Additionally, the Evaluation of Team-Based Learning Questionnaire, as attached in Appendix B was adapted from Nagaswami et al. (2009). The survey consisted of three sections. Section A consisted of 2 questions to examine the students' general information regarding their academic performance and group-based learning styles. Section B and Section C consisted of 10 questions respectively. Section B aimed to determine the respondents' perception of Team-Based Learning whereas Section C intended to investigate the participants' perceptions of teamwork in Team-Based Learning. The response format for all the items was based on a 5-Point-Likert Scale ranging from "1" to "5" in which "1" represents "strongly disagree", "2" represents "disagree", "3" represents "neutral", "4" represents "agree", and "5" represents "strongly agree".

The learners' perception towards the practice of Team-Based Learning was determined using an Evaluation of Team-Based Learning Questionnaire, which was adapted from Nagaswami et al. (2009). Nevertheless, learning outcomes in this study referred to the students' total scores for the Individual Readiness Assurance Process (I-RAP) tests, Team Readiness Assurance Process (T-RAP) tests, and the Team Application Exercises for the subject.

30 students have voluntarily participated in this study. A pre-test and post-test study were administered to examine whether the implementation of Team-Based Learning approach could be able to improve the respondents' perception towards this new learning approach and the importance of teamwork in learning.

Online Survey

Additionally, an online survey was opened to all the 30 students who were volunteered to participate in the study on Google Forms Application after the implementation of the learning approach. The online survey aimed to synthesise strategies and methods to improve Team-Based Learning for business education in future. The survey consisted of three open-ended questions as follow: -

1. What is your thought about team-based learning (TBL)?
2. What are the limitations that the Team-Based Learning process presented during the practice?
3. What are the strategies or methods suggested by you to improve the limitations of Team-Based Learning that you mentioned previously?

3.6.3 Data Collection Procedures

There are three phases of data collection processes in this phase. They were Evaluation of Team-Based Learning Questionnaire, implementation of Team-Based Learning activities, interviews, and online survey respectively. The outline of research procedures were presented in Figure 3.1. The data collection procedures were discussed as follows: -

Evaluation of Team-Based Learning Questionnaire Procedure

In this study, Team-Based Learning was practised for a business unit in a private international higher education. Initially, all the students who have enrolled for this subject were invited to participate in an Evaluation of Team-Based Learning Questionnaire to assess the students' perception towards Team-Based Learning before the implementation of the Team-Based Learning activities. At the end of the semester, all the students were required to fill in again the same set of Evaluation of Team-Based Learning Questionnaire to assess their perception of the learning approach after the Team-Based Learning activities.

Team-Based Learning Activities Procedure

Subsequently, individual pre-class preparation was conducted out-of-class by providing the students with comprehensive study guides, lecture slides, and web-based resources via the Blackboard Learning System. Whitley et al. (2015) emphasised the importance of learning outcomes in assisting the students to focus on their provided reading materials during the preparation phase. Learning outcomes are statements that specify what a learner should be able to know or do at the end of the lesson as a result of the learning activities (Lesch, 1995). Immeasurable words such as 'understand' and 'know' must be avoided while writing the learning outcomes for the unit. Besides, the intended learning outcomes should also align and consistent with the teaching and learning activities and assessment tasks. Further, a good learning outcome is expected to include all four types of factual, conceptual, procedural, and meta-cognitive knowledge (Blumberg, 2009).

Pauleen et al. (2004) proposed on the extensive use of Blackboard web-based learning management system in the preparation stage to ensure better Team-Based

Learning experiential learning. The researchers suggested the use of video clips and Learning Management Systems (LMS) such as Blackboard to improve preparation phase of the Team-Based Learning process. Whitley et al. (2015) also indicated that the instructors should not provide too much direction to the students during the team application exercises, but instead acts as facilitators to build their team cohesiveness.

Next, Individual (30%) and Group test (15%) were conducted based on Team-Based Learning. The Readiness Assurance Process (RAP) Test was carried out to test whether students understand the concepts from previous and current lectures. This assessment was to make sure the students read the textbook and lecture materials. For the first 30 minutes, students did the Individual Readiness Assurance Test (I-RAT) individually. After 30 minutes, Answer Sheet was collected, and then the students were asked to go to their groups for Team Readiness Assurance Test (T-RAT).

The students in their group worked together to answer the question using the same questions set. It was a closed book test, but they could make noise as they needed to discuss and argue to answer the question. Students required to scratch the IF-@ Form for the answer they have chosen. If the first choice of their response were correct (the one with the star or asterisk), they would get 4 points. The second scratch and accurate, 2 points; third scratch right, 1 point. After they finished the group test, they were asked to add the marks (points) as the total mark.

If some groups were not happy with the correct answer from the test, they could challenge. An Appeal Form was given to them. If their appeal were correct as they could look at their request the following week, all members of that group would get the mark. In this case, 4 marks were given for each question. Answer-until-correct assessment method was practised in the tests to provide immediate feedback to the students and the

instructor. Farland et al. (2015) found out that this assessment method can be able to increase exam scores and improve the students' perceptions of the quality of their team interaction.

Finally, Team Application Exercises were the last assessment of Team-Based Learning activities. It was an open book, and the students were allowed to bring their laptop and mobile phone to access the internet. Once the students have settled down, the instructor wrote the three questions they needed to answer on the whiteboard. They were asked to apply the knowledge they learnt from lecture and textbook to answer those questions. They worked in their group. They were required to discuss the cases and how to solve the given problems in teams. The students were given 1 hour to discuss and write their answers on the provided forms.

Online Survey

The students' suggestions of the methods and strategies to improve Team-Based Learning were recorded on online worksheets designed and developed using Google Forms Application. The survey data was also drawn to substantiate the students and instructors' perception towards Team-Based Learning. Eventually, the Team-Based Learning intervention was refined in the future iterations by incorporating strategies and methods proposed by the students in the online survey. These research procedures were fitted in the Instructional Delivery and Evaluation Instruments elements of the KEMP's Model. Figure 3.1 below outlines the research procedures of this entire study.

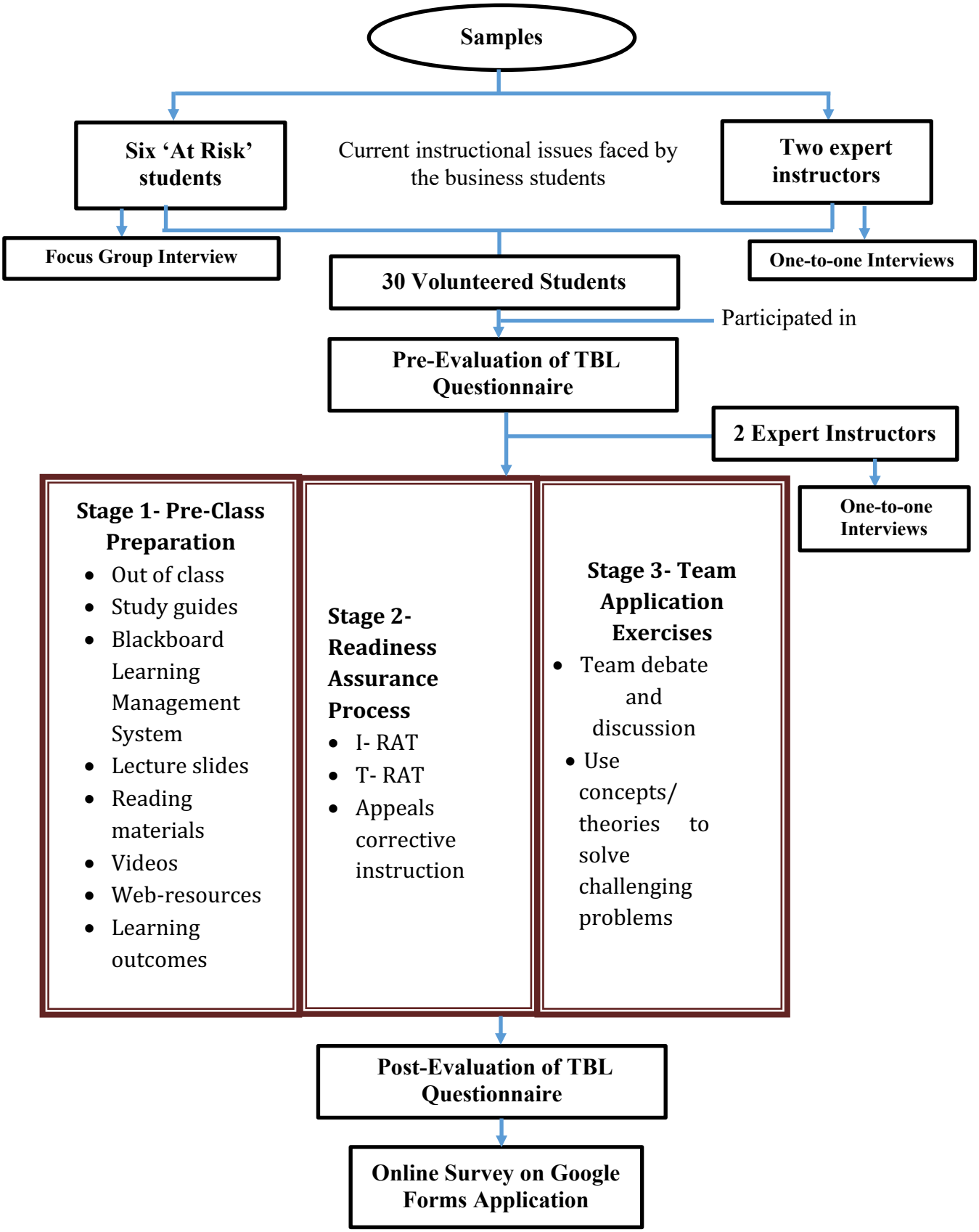


Figure 3.1 Outline of Research Procedures

3.7 Validity of Study

Validity is defined as whether this research could be able to measure what was intended to be measured (Stone, 2011). The Readiness Assurance Process Test, Team Application Exercises, and Evaluation of Team-Based Learning Questionnaire were reviewed by an advisory panel of prominent researchers and groups of international scholars who are expert in the field of Human Resource Management to ensure content validity. The questions proposed were clear and simple to understand. The questions were also scrutinised by an expert practitioner who has been teaching Human Resource Management course for more than ten years, with an abundance of research experience. This step is vital to ensure the content validity of the questions so that they could be able to measure what they intended to measure and were aligned with the research objectives (Creswell, 2014). Furthermore, both quantitative and qualitative methods were included to enhance the validity of the study.

Generally, there are two categories of validity threats. They are internal validity threats and external validity threats (Creswell, 2012). Internal validity is the successfulness of the research design to establish the cause and effect relationship between the research variables (Sekaran & Bougie, 2010). In this study, eight internal validity threats were identified and discussed accordingly as follows: -

3.7.1 (a) Subject Characteristics Threat

This issue is a threat where the respondents may come from different learning background. These background differences might account for gaps in their Team-Based Learning knowledge and skills. In this study, all the participants were in their Year Two of Bachelor of Business programme. They had a similar number of years of experience in higher education. Therefore, their skills and knowledge of Team-Based Learning were

assumed to be more equal compared to those students at the entry level and final year. This threat can be considered to have been minimised through such selection of subjects.

3.7.1 (b) Time Threat

This risk is a threat where the samples change their behaviour as a result of the passage of time, not due to the intervention. However, the duration of this study was only twelve weeks. Hence, the participants were unlikely to change their attitudes and use of the Team-Based Learning strategies in such a short period unless there are jointly arranged effort of intervention in place.

3.7.1 (c) Maturation

This problem is a threat where the participants acquired some skills or behaviour as a result of maturation. Nonetheless, since the period of study was solely twelve weeks and the samples were adult learners, maturation threat would be very minimal.

3.7.1 (d) Instrumental Effect

This effect is a threat where the instrument is becoming obsolete or out-of-date. The Evaluation of Team-Based Learning Questionnaire was used in the pre-test and post-test. This questionnaire was a broadly used instrument thus this threat was minimal. Moreover, it has been pilot tested for reliability before use.

3.7.1 (e) Testing Threat

This threat is an effect where the participants are becoming familiar with the instrument. The pre-test was taken in Week 2 while the post-test was conducted in Week 12 of the semester with ten weeks in between. Hence it was unlikely for them to remember the scale they marked in their previous questionnaire. Furthermore, the students have not

been informed about the post-test at the time when they did the pre-test. Thus this would eliminate their intention to memorise their choices when they answered the pre-test questionnaire. There were also no repeaters' students in this class whoever attempted the individual test, group test, and team application exercises before.

3.7.1 (f) Reactivity and Experimenter Effects

This effect refers to the possibility of the participants changing their behaviour when they were awakened of the purpose of the questionnaire and the Team-Based Learning approach. In this study, data of mixed methods that involved both quantitative and qualitative approaches were used. The collection of data from various sources and means over twelve weeks' period would also ensure the reliability of the analysis. Any inconsistency of data would be ruled out when making any comparison of findings. Therefore, this threat can be assumed as negligible.

3.7.1 (g) History Threat

This threat refers to the possible occurrence of some incidents or events in between the semester that might influence the students' perception on Team-Based Learning and their learning outcomes for this particular unit. The mentioned event could be any training or workshops on effective learning. However, these kinds of training and workshop were usually offered to students at this private international university at the university entry level. This threat was especially unlikely to occur for students' participants of this unit of study since all of them were in Year Two. Furthermore, the curriculum content, learning activities, and assessment tasks were similar to those implemented in the past semesters, except for the inclusion of Team-Based Learning approach.

3.7.1 (h) Experimental Mortality Threat

This threat refers to the case where there might be many reasons for the participants to dropout or withdraw from the research. However, this threat does not exist in this study since it only involved a single group of 30 students from a single unit of study. The number of students took part in the pre-test and post-test were precisely the same, which was 30 participants.

External validity threats were defined as the threats limiting the generalisation of an experiment (Springer, 2010). In this study, two external validity threats were determined and discussed accordingly as follow: -

3.7.2 (a) Population Threat

This is a threat where the generalisation of the research results to a larger population was limited. Since the samples of this study were heterogeneous and representative, in which the majority of them are Malaysians. As a result, the findings of this research can be generalised to Malaysians students studying in a branch campus of a private international higher education institution.

3.7.2 (b) Ecological Threat

This threat is the generalizability of the research into a broader environment. The ecological threat is significant for a laboratory experiment. This study was conducted in a design-based basis where the participants have undergone Team-Based Learning as part of their learning activity. They participated in individual tests, team tests, and team application exercises in which all these activities were done in their study environment. Therefore, this threat is perceived to be minimal.

3.8 Reliability of Study

On the other hand, reliability is determined as consistency of findings and interpretation when repeating or comparing assessments within a study (Stone, 2011). A pilot study was carried out to test the feasibility of this research and the reliability of the Evaluation of Team-Based Learning questionnaire. Cronbach Alpha coefficient was used to measure the consistency of the questionnaire. The results of the pilot study were discussed in the section below.

3.9 Pilot Study

A pilot test was carried out in Semester 2, 2017 from 21 August 2017 to 17 November 2017 to verify the instruments and the research methodology. The pilot study was carried out with 30 students who were enrolled for a business unit studied in this research in Semester 2, 2017. They were not involved in the actual study. The pilot study was conducted to determine the reliability of the questionnaire.

The Evaluation of Team-Based Learning Questionnaire used in this study was adapted from Nagaswami et al. (2009). The survey consists of three sections. Section A consists of 3 questions to examine the students' general information regarding their academic performance and group-based learning styles. Section B and Section C consist of 10 questions respectively. Section B aims to determine the respondents' perception of Team-Based Learning whereas Section C intends to investigate the participants' perceptions of teamwork in Team-Based Learning.

The reliability of the questionnaire was analysed using the Cronbach Alpha coefficient to measure the consistency of the research instrument (Fraenkel & Wallen, 1993). They proposed that the alpha values should be at least 0.70 or higher for research

purposes. The reliability analysis was conducted for Section B and C of the questionnaire. The pilot study showed that the overall reliability of the questionnaire used was 0.920, which was considered at a good reliability level. The results were presented in Table 3.3.

Table 3.2 Reliability Analyses Result of the Questionnaire for Pilot Study

	Cronbach's Alpha Coefficient, α
Overall (Section B & C)	0.920
Section B Perceptions on TBL	0.924
Section C Perceptions on Teamwork in TBL	0.901

Based on the results shown in Table 3.4, Team-Based Learning activities were well perceived by the students (Overall Mean= 3.959, Std. dev. = 0.794).

Table 3.3 Students' Perceptions on Team-Based Learning

	Mean	Std. Dev
Overall (Section B & C)	3.959	0.794
Section B Perceptions on TBL	3.848	0.799
Section C Perceptions on Teamwork in TBL	4.070	0.788

The questionnaire was piloted with 30 respondents, which were not included in the final study. The Cronbach Alpha values were above the criteria suggested by Fraenkel & Wallen (1993) who indicated that a cut off value of 0.7 is acceptable. Thus, it can be concluded that the instrument used in this survey had good internal consistency and was reliable.

3.10 Ethical Issues

The protection of respondents was considered as an essential issue in conducting this study. Initial approval was received from Open University Malaysia with major amendment required after the proposal defence session. The amendment was completed within one month, and approval was acquired from the institution's Programme Director for Education and Social Science Cluster on 23 February 2018 (Refer to Appendix A for the letter of confirmation). After that, the Human Research Ethics Application was approved by the Ethics Committee Director for Research, Consultancy, and Future Projects of the selected university on 15 March 2018.

This study did not create any risk for the respondents. The researcher had wholly followed the interview protocol in the data collection processes to avoid ethical implications. Care was taken by the researcher to protect the respondents' confidentiality. Their participation was completely voluntary and anonymous. No personal information would be revealed in this research. The participants' name was not being mentioned in the research. They were only being identified as 'participant' or 'respondent'.

A respondent consent form was signed in written form, and the purposes of the interview were explained before the survey and interview. They have the right to withdraw from the research at any time after consenting. This study assists in providing

insights on the issue of Team-Based Learning among students who enrolled in the business courses in a private international higher education institution in Sarawak.

Furthermore, only the researcher and her supervisor could access and use the collected data. All electronic data was stored on the researcher's personal computer with a password. The data will be held for three years and will be subsequently destroyed. Ultimately, the respondents were given an opportunity to review the interpretation of their feedback to the three interview questions to ensure trustworthiness.

3.11 Proposed Framework for Data Analysis

This study involved quantitative and qualitative methodologies that would produce both quantitative and qualitative data for analysis.

3.11.1 Quantitative Data

The quantitative data collected via the questionnaire was analysed by using the Statistical Package for the Social Sciences (SPSS) Version 23.0. The data obtained from the Evaluation of Team-Based Learning Questionnaire was examined by comparing the overall mean and standard deviation before and after the Team-Based Learning activities to answer Research Question 4 (RQ4) on the business students' perception towards Team-Based Learning. Subsequently, paired sample t-test was also conducted to determine whether there was a significant difference in the before and after scores of students' perception towards Team-Based Learning.

To answer Research Question 5 (RQ5), which is to determine what the effect of Team-Based Learning on the learning outcomes among university business students, is, Pearson Moment Correlation Analysis was carried out to determine the relationship between the students' perception towards Team-Based Learning and learning outcomes.

The independent variable, in this case, is the students' perception on Team-Based Learning whereas the dependent variable is the students' learning outcomes which included their total scores for the individual tests (I-RAT), team tests (T-RAT), and team application exercises.

3.11.2 Qualitative Data

Additionally, the qualitative data obtained from the interviews and online open-ended survey was analysed using Thematic Content Analysis method (Jugder, 2016). Thematic Analysis is the most fundamental qualitative analysis method that is suitable to interpret data collected through interview. It can also descriptively present interview data.

Thematic Analysis was used as a methodological framework to handle the analysis of the qualitative data. Even though the thematic analysis was seen as a methodological tool that can only be used within other methodological frameworks such as grounded theory and phenomenology method (Ryan & Bernard, 2003). Recently, researchers and psychologies have argued to recognise thematic analysis as the methodological approach to handle data. Themes that signify the respondents' Team-Based Learning experiences were constructed using Thematic Analysis that enabled the researcher to engage profoundly and rigorously to identify, analyse, and report patters within the textual data.

This technique creates meaningful reporting knowledge and theory by organizing the collected data via six phases. These phases include familiarise with the data, produce initial codes, look for themes among the initial codes, review the available themes, identify and name the themes, and finally generate a meaningful report. The analysis process was being done by following the procedures as below (Braun & Clarke, 2006): -

1. Write out the recorded interview into multiple copies of textual documents.
2. Read the initial transcript documents to be familiarised with the interview data. This step is essential to understand the interview contents better before the coding process.
3. Read and review the literature to identify major themes for this study.
4. Read and code the interview text by highlighting all descriptions that are related to this study topic. Any other relevant themes were also identified from the text.
5. Review the literature, problem statements, and research objectives once again to lessen the numbers of themes identified.
6. After a few days, reread the interview descriptions once again to finalise the themes.
7. Produce a final report.

Firstly, the researcher ensured that she is familiar with the data on how the respondents elaborated about their learning experiences by listening to the recorded audio files repeatedly. The transcripts of the interviews were read and corrected for any transcription mistakes and missing findings. This step was crucial to allow the researcher to understand the respondents' feelings and learning experiences in a holistic way. The interview transcripts were presented in Appendix I, J and K.

Secondly, the transcripts were coded using both inductive and deductive approaches. Ideas and themes were generated from the data based on theories while interacting with the data. Next step was to search, review, define and name the themes from the codes identified. The coding process and the themes were generated manually since there were only six student participants and two practitioners who involved in the interviews. Atlas.ti, a qualitative data management software package is only needed when

the data collected is complex with a massive number of participants. The dissertation produced here is the result of the completion of the analysis procedures where the themes and findings are presented in Chapter 4, 5 and 6.

Generally, two stages of analysis were carried out in this research by utilising the codes and themes as proposed by Zimmerman and Martinez-Pons (1986). Stage one involved the identification of codes based on Team-Based Learning literature whereas Stage two involved the categorisation of these codes based on the themes of the Team-Based Learning model. Different main themes were determined for research question 1 and 2. New codes and themes were identified and highlighted, where relevant. Table 3.5 shows the statistical analysis technique used to analyse the data: -

Table 3.4 Data Analyses Used in the Study

Sample	Research Questions	Instrument	Method of Data Collection	Method of Data Analysis
The business students in a private international higher education institution who have enrolled in a business unit studied in this research in Semester 1, 2018	RQ1: What are the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives?	Focus group interview and one-to-one semi-structured interviews.	Focus group interview with six 'At Risk' students and one-to-one semi-structured interviews with two expert instructors. More questions are proposed to the participants to stimulate their ideas.	Thematic Content Analysis
	RQ2: What are the experts' views on the elements that should be incorporated into the development of the Team-Based Learning activities for business education in a private international higher education institution?	One-to-one semi-structured interviews.	One-to-one semi-structured interviews with two expert instructors.	Thematic Content Analysis
	RQ3: Which are the methods and strategies to improve Team-Based Learning for business education in a private international higher education institution based on the students' recommendations after the implementation of the Team-Based Learning approach?	Online open-ended questions survey on Google Forms Application.	Online open-ended questions survey with 30 volunteered students.	Thematic Content Analysis

Table 3.4 (Continued)

Sample	Research Questions	Instrument	Method of Data Collection	Method of Data Analysis
	RQ4: How do the business students in a private international higher education institution perceive the practice of Team-Based Learning ?	Evaluation of TBL Questionnaire (Section B & C)	All the participants are required to fill out the questionnaire before and after the implementation of the TBL activities.	Compare Overall Mean & Standard Deviation before and after the TBL activities Paired Sample t-test to determine whether there was a significant difference in the before and after scores of students' perception towards TBL
	RQ5: What is the relationship between the students' perception towards Team-Based Learning and their learning outcomes among business students in a private international higher education institution?	I-RAP, T-RAP Tests, Team Application Exercises & Questionnaire (Section A)	Quantitative data of the total scores of I-RAT, T-RAT, and Team Application Exercises and the students' perception towards TBL.	Pearson Correlation Test to identify whether there was a significant relationship in the students' total scores of learning outcome and their perception towards TBL IV: Students' perception of TBL DV: Students' Learning Outcomes (Total scores)

3.12 Summary

This chapter outlined the research design, conceptual framework, the respondents, the research instrument, data collection and analyses procedures used in the study. This chapter also discussed the processes of data collection, as well as the design and operation of the Team-Based Learning activities. The next sections present the results of the data analyses.

CHAPTER 4

FINDINGS OF PHASE I: NEEDS ANALYSIS

4.0 Introduction

This chapter presents the analyses of data collected and the results of the research based on the first research question, that is to investigate what are the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives. This chapter aims to discuss the research findings that had emerged from the preliminary phase of the study. The four phases of this study are derived from the nine elements of the KEMP's Model. These four phases are the needs analysis phase, the design and development phase, the implementation phase, and the evaluation phase.

This chapter presents the detailed data analysis supported by the tabulated results, the analysis of students and instructors interview responses, and a summary of the study results. The findings are presented in four sections. The first section of this chapter focusses on the profile of the respondents. The second section comprises the qualitative findings of the current instructional problems faced by the students who were enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives. In the third part, conclusions on the findings of the instructional issues faced by the business students are made, and in the last part, the implications of the findings towards the design of Team-Based Learning approach in the next phase of the study are discussed.

4.1 Needs Analysis Phase

The preliminary phase of this study is known as the needs analysis phase. Before the actual implementation and evaluation of the learning approach, instructional issues faced by the business students in higher education were identified based on the interviews with the students and instructors as respondents. This study is intended to design and develop an instructional approach that can be able to solve the current instructional problems faced by the business students in a private higher education institution. Therefore, it is necessary to investigate the problems currently faced by the students in this needs analysis phase.

4.1.1 Instructional Problems Element of KEMP's Model

This step is aligned with the first element of KEMP's Model- Instructional Problems. The researcher will determine if the problems and needs of the students involve the instructional aspect as a solution. If the need identified requires a non-instructional solution, the researcher will discuss with other experts to implement the most suitable non-instructional solution (Morrison et al., 2007).

4.2 Interviews with the Students

This section discusses the findings collected from the students to answer RQ1. The primary objective is to find out the instructional problems faced by these students based on their views and to synthesise possible learning approaches that can help them. The findings obtained from the focus group interview with students were reported in the section below. The attempts portrayed in this process aims to answer Research Question 1 (RQ1).

An interview guide that consists of three open-ended questions was prepared to assist the researcher to focus on the research topic. The main studied area is the instructional problems faced by the students in their studies. Study support methods that may assist them in resolving their problems were proposed based on the instructional problems.

4.2.1 Learner Characteristics Element of KEMP's Model

This step is aligned with the second element of KEMP's Model- Learner Characteristics. According to KEMP's Model, the characteristics of the target participants or those learners who were not performing as expected should be recognised (Morrison et al., 2007). The information collected including the participant's genders, ethnicity, program of study and academic year, depending on the instructional problems identified.

Therefore, the preliminary phase of this study was conducted to investigate the instructional needs of the 'at risk' students who were enrolled in the Business courses in a private international higher education institution in Malaysia.

4.2.2 Profile of Students as Respondents

A focus group interview was conducted with students before the actual data collection process. Six students in the second and third year of Bachelor of Business programs were interviewed. The six students were chosen from 24 students in the 'At Risk' students' list provided by the Student Development and Support Unit. 'At Risk' referred to students who were facing learning difficulties and disciplinary problems that could jeopardise their academic performance due to various internal and external factors. They were considered as having a high probability of failing academically, low test scores or even dropping out of university. The unit convenors reported the 'At Risk' list mainly based on the students' academic results and their specific behaviours observed over time.

The student counsellor provided a list of students who would be able to give full cooperation and honest responses throughout the study. Six students were selected from the list based on their willingness to contribute worthwhile information and insight to the researcher regarding their instructional problems. Table 4.1 summarised the profile of the students' respondents involved in the needs analysis phases of this study.

Table 4.1 Profile of the Student Respondents (n=6)

Pseudonyms used	Sex (M/F)	Ethnicity	Programme of Study	Academic Year
Alfred	M	Local Chinese	Accounting	2
Mary	F	Bruneian	Accounting	3
Jody	F	Local Bidayuh	Finance	2
Gary	M	Local Chinese	HRM	3
Rebecca	F	Indonesian	International Business	2
Farhan	M	Local Malay	International Business	2

The respondents consisted of students from different gender, ethnicity background, programme of study, and academic year. The respondents were Year 2 or 3 business students that comprised of three males and three females. Two of the respondents were local Chinese students, followed by one local Malay student, one local Bidayuh student, and two international students from Brunei and Indonesia respectively. The students were either majoring in Accounting (2), Finance (1), Human Resource Management (1), or International Business (2). According to the student counsellor, one of the respondents was suffering from depression while the other five respondents were facing learning difficulties mainly due to their personal problems.

4.3 Interviews with the Instructors

One-to-one interviews were conducted with two instructors who were involved in the Business courses and they were also the unit panel members and instructors for the unit studied in this research to support the data obtained from the student respondents. The interviews were carried out based on Research Question 1, that is to answer what are the current instructional issues faced by the university students enrolled in a business course in a private international higher education institution according to the instructors' perspective. These findings are aligned with the analysis and themes obtained from the students' data. The interviews aimed to investigate the current teaching practices of the respondents, the instructors' current teaching practices of teamwork skills among the students, and the instructional challenges faced by the instructors and the students in their current teaching practices.

4.3.1 Profile of Instructors as Respondents

The two instructors were chosen mainly based on their expertise and knowledge as well as willingness to contribute worthwhile information and insight to the researcher regarding the instructional problems faced by current business students as observed and experienced by them. Both of the instructors satisfied the selection criteria set by the researcher. The four criteria of selection are indicated below: -

(1) The instructors should have taught in this university for more than ten years who are considered as experienced and expert in the area of business;

(2) The instructors should be experienced in teaching Human Resource Management (HRM) units so that they can comment on the instructional issues faced by their students in learning the HRM unit studied in this research,

(3) The instructors should be experienced in conducting Team-Based Learning approach so that they can share their suggestions on how to further improve this approach in the design and development phase, and;

(4) The instructors should be able to provide full cooperation and genuine responses throughout the study.

The two respondents were the unit panel members and instructors for the unit studied in this research. They are currently teaching in the Faculty of Business, Design, and Arts. The involvement of these two instructors enabled this research to gain more viewpoints and experiences to support the students' responses for a more in-depth and meticulous analysis. The two respondents are experienced educators and practitioners in the field of Human Resource Management (HRM) and Team-Based Learning. Both of them have been teaching in university for more than ten years with at least eight years of industrial experience. Respondent 1 is the unit convenor for the researched unit, and she is specialised in Human Resource Management area. On the other hand, Respondent 2 is the tutor for this unit. He is teaching Human Resource Management and International Business units all this while. Refer to Table 4.2 and Table 5.3 for the profile of the respondents.

Table 4.2 Profile of the Instructor Respondents (n=2)

Pseudonyms Used	Gender (M/F)	Years of Teaching Experience	Years of Industrial Experience	Subject(s) taught
Emily	F	12	8	HRM
Albert	M	23	14	HRM & IB

4.4 Findings of the Interviews

The focus group interview with the six students who were enrolled in the business courses and interviews with the two instructors, were recorded, transcribed, and analysed. Keywords, patterns, and words phrases that emerged from the first level data analysis generated four main themes as presented in the Appendix F. The findings gained based on interview with the instructors provided extra information to support the students' responses for the current instructional issues faced by the students who were enrolled in the business courses in a private international higher education institution in Malaysia.

These findings showed that the students are having instructional problems. Instructional solutions were suggested in the final section of this chapter, after finding the problems and needs. Four main themes of the instructional problems that students faced are emerged from the data, which are Lack of Interactivity, Lack of Learning Skills, Lack of Practical Exposure, and Personal Effort issues.

4.4.1 Lack of Interactivity Issues

The interactivity issues comprised of 'lack of student interaction' and 'lack of interaction between the students and their instructors' issues. The findings gathered from both the students and instructors' responses indicated that there were issues related to lack of interaction existing in the business classroom. In this study, student interaction referred to the practice of developing the students' speaking and listening skills by ensuring effective class communication among the learners (Tsui, 1995). Student interaction issues occurred in the teaching and learning process of attending to the students' needs and feelings so that they learn new things in the classroom.

Student interaction and participation are essential to developing speaking and listening language skills among the students. Surprisingly, the primary learning issue mentioned by the students, Rebecca and Farhan, was that they were unmotivated to attend lectures or tutorials because the classes were considered as not interactive and unproductive. Besides, they were further encouraged to skip tutorials in particular as there were no participation marks allocated for tutorial classes in some units. Their feedback is quoted as below: -

Rebecca: *I feel unmotivated to attend lectures or tutorials because of the err… lectures or tutorials are not interactive and unproductive. I don't feel like to attend classes… because they were so boring (Rebecca, Line 43-45).*

Farhan: *Yea, I agree. The classes are so not interactive. I rather study myself at home. I choose to skip tutorials because of no participation marks will be given for tutorials for some units (Farhan, Line 46-48).*

The instructors also verified the lack of class interaction issue. One of the instructors, Emily stated that she is still using traditional PowerPoint slides practice in her teaching as explained below: -

… my current teaching practices are to teach using PowerPoint slides in lecture, erm… of course not forget to interact with students. Anyhow, this depends on the topic and contents we are discussing (Emily, Line 10-12).

This issue might occur because in most of the higher education institutions around the world, the lecture environment is still that of traditional, passive, and low-tech settings where the educators widely use whiteboard and PowerPoint slides (Hong et al., 2012; Pitler et al., 2012). Based on the researcher observation, most of the business instructors in this higher education institution are still using PowerPoint slides as their primary teaching and learning tool in class.

Another instructor, Albert explained that there was a lack of class interaction due to the class size and time constraint factors. The respondent described,

… the challenge for students is there is a lack of interaction between the students and their lecturers, especially in the lecture due to an only 1-hour lecture for some units (Albert, Line 46-48).

Yea… I have to admit that interaction is not so possible to lecture due in the class size and time constraint (Albert, Line 20-21).

These responses showed that student interaction and tutorial participation issues should also be put into consideration while designing and developing new instructional approaches to solve the instructional issues as recommended by the student respondents.

I feel that lectures and tutorials have to be more interactive. And err… the tutorial time can be reduced to only one hour. The lecturers… err… will encourage students to… engage in discussions rather than just give answers to the students (Rebecca, Line 79-82).

To motivate students' participation…erm…, I suggest that… tutorial participation marks should be given… (Jody, Line 83-84).

Subsequently, effective class communication between the students and their instructors is also essential to overcome the interactivity issues. The findings indicated insufficient feedback from instructors as one of the teaching issues faced by the students. In this area, one of the students, Gary reflected that he had not received sufficient academic support from some of their lecturers. In particular, mid-term tests and assignments were marked and distributed back to the students without feedback. Therefore, he had no idea of how he was doing in class or the areas he should improve on in order to perform better on the final exam. Thus, continuous feedback should be considered as one of the components when designing the new instructional approach as suggested by the student. His interview data is provided to support this claim as follow: -

… I feel I have not received enough academic support and feedback from some of my lecturers. For example, mid-term tests and assignments have been marked and gave back to us without any feedback… arr… I have no idea of how am I doing in class, or the areas I should do better in my final exams (Gary, Line 27-31).

I feel it is important for lecturers to mark and give the test and assignments back to the students on time before the final exams with constructive comments or remarks… Continuous assessment and feedback are important (Gary, Line 58-62).

Another respondent, Farhan, was also having problems to write his answers to tests or assignments due to insufficient feedback in class. He also emphasised the importance of continuous feedback from the instructors. The responses claimed,

Sometimes…, I do not know what is expected of us when we are answering the tests or assignments. Erm… because of the little feedback was given during the semester (Farhan, Line 34-36).

Both pre and post-exam feedback from lecturers are both important and…err… should always available to us (Farhan, Line 65-66).

Additionally, Farhan also revealed that in some units, he was not given a chance to view the final exam scripts. This was perceived as denying the students the opportunity to identify their mistakes so that they could improve accordingly in the future. This was verbalised by Farhan as: -

… Also, we are not given a chance to see our final exam scripts for some units… This denies our opportunity to know what are our mistakes in the final exams (Farhan, Line 32-34).

Successively, one of the respondents, Jody also commented that there is a lack of clear instructions for assessment. The feedback stated,

I have one extra problem that I don't know should I say here… arrr… Anyway, sometimes… arr… the instructions for assignments are unclear (Jody, Line 111-112).

Therefore, there is a need for the tutor and lecturer to explain the cases and the questions briefly, and to provide clear instructions to the students before the assessment as proposed by one of the students, Mary.

Yes… arr… assignment questions and instructions may be set clearly for students to understand (Mary, Line 115-116).

The instructors also suggested that team-based activities might work in solving the class interaction issue. The instructors strongly believed that Team-Based Learning works in solving the instructional challenges, as proven by the literature. Below are extracts from the instructors.

… majority of them prefer team-based activities than the traditional learning activities… especially for the Team-Based Learning approach. I got fairly well feedback last few semesters. Most of the students said that they could learn better using this method (Emily, Line 40-44).

… They enjoy working in teams, especially the Team-Based Learning approach that can enhance their understanding of the theories and concepts in a lecture way (Albert, Line 39-41).

Positively, Team-Based Learning works in solving the instructional challenges mentioned above. Literature proves this, isn't it? (Albert, Line 50-51).

4.4.2 Lack of Learning Skills

In this case, the learning skills referred to the personal attributes and abilities that enable the students to study effectively and achieve their goals with complementing hard skills (Cimatti, 2016). These learning skills are considered as crucial to their future employers even though they are not directly connected to a specific task. One student, Mary indicated that she was facing tremendous problems when trying to write their answers to tests, exams and assignments. She faced difficulties when revising by not knowing what is relevant or irrelevant.

I also face difficulties when reading textbooks or reference books. I don't know what is relevant or not, especially for our Accounting subjects… err… I also face problems when revising for tests or exams (Mary, Line 38-40).

She later proposed peer assisting program to help her learning. Her feedback was as follow: -

I suggested for a peer assisting program where senior students are encouraged to help their junior peers in their areas of weakness (Mary, Line 73-75).

I love peer tutoring method. Err… I like to learn together with my peers (Mary, Line 102-103).

Likewise, peer tutoring method was also well-liked by other two students, Gary and Jody. These issues and recommended methods were considered in the design phase.

I need somebody to give… directions to me on how to… erm… study effectively and how to improve my writing skills (Gary, Line 104-105).

I have no idea… err… but I think peer study works for me (Jody, Line 106).

There is one student, Jody, who was doubtful about the instructors' expectation when answering exam and assignments questions due to insufficient practice during the semester. The response asserted,

… Lecturers should post more samples practice questions on Blackboard so that students may be able to…err… practice more questions to prepare for the final exams. For example, err…, exam samples from our main campus should also be made available to the students with subject answers in order to give us a clear idea of what is required in the final exam (Jody, Line 67-71).

Therefore, more continuous tests and application exercises should be incorporated in the instructional approach so that the students can be able to improve their writing and answering skills gradually throughout the semester.

Application skill is to do with the students' ability to transfer the concept and theories learned for practical purpose. Lack of application skills issue was also noted to exist among the business students. The students stated that they struggled to apply the theories that they have learnt in classes into practice. This inability affected their grades, as they would be tested based on their skills of applying theoretical knowledge to real-life practices.

I struggle to apply the theories learnt in classes to real-life, especially for management units and case studies… err… This will affect my grades because we will be tested based on our skills of applying… theoretical knowledge into practice (Jody, Line 49-52).

The instructors also confirmed the lack of learning skills issue. Cimatti (2016) defined learning skills in terms of Personal and Social Skills. Personal skills implied to cognitive and thinking skills whereas social skills referred to people relationship. There are eight learning skills as categorized by Cmatti (2016). These learning skills are problem solving, analysis and synthesis of information, autonomously criticism, effective communication, long-life learning, team working, initiative, and organization and planning skills. One of the instructors, Emily pointed out that the business students could not be able to relate the learning contents learned with other topics and subjects. They were also lack of critical thinking and higher-order thinking skills. Furthermore, most of the students were weak in the real-life application, particularly in solving case study and final examination questions. The respondent asserted,

Based on my experience, I think the main issue is our students find it hard to relate the learning contents with other topics and units. Erm… Most of them are lack of critical thinking and higher-order thinking skills. What else… erm… My experience taught me that the students were usually not doing well in case study questions, especially during the final exam. This is most probably because they are weak in the real-life application as well. And this is a great challenge for me as a lecturer and tutor (Emily, Line 47-53).

This issue might be due to the attitudes of the students, which are used to the "spoon-feeding" approach. The main reason for these issues is that most of the business

instructors prefer to teach using traditional lecture method to deliver a massive amount of learning contents to the students and required the students to memorise the concepts without understanding the true meaning of the learning contents (Cornelius, 2014).

The instructors regarded relating skills and application skills of learning contents to the real life as crucial for business students and are essential to be incorporated in the newly designed instructional approach. The respondents described,

My practice is to share my experience and ideas with the students in lectures while tutorial classes would usually be more… I can say more 'sensible', in a way, more focus on the application of concepts (Albert, Line 14-16).

… Students will apply their knowledge learned through the lectures and field work to real- world challenges which are more important for their future career… (Emily, Line 19-21).

4.4.3 Lack of Practical Exposure

Practical Exposure issue is an educational problem that would obstruct the students' employable skills outside the classroom. The findings assembled from the students and instructors' responses indicated that practical exposure problems were also existing in the business classroom.

One of the students, Alfred, is confused as to what is expected of him in the actual workplace after he graduated. He does not know what the potential employers will expect from him when he embarks on the future career paths and how to apply his knowledge in the future workplace. His response is cited as follow: -

I also confused what is expected of us in an actual workplace when we graduate and… erm… how to apply our knowledge to the workplace. I have no… knowledge of what my future boss will expect from me in my future (Alfred, Line 53-55).

One of the instructors, Albert, also verified the practical exposure issue. His responses indicated that he was more concerned about students' understanding of the concepts and theories. Based on the responses, he seldom conducted team activity in class. Team activities were carried out occasionally in the tutorial classes. He firmly believes that he should spend more time teaching the theories and concepts that are more crucial to the students' future career. The students are not usually expose to the practical examples. However, these theories and concepts bored the students and reduced their interest in that particular subject. His responses quoted,

… I rarely have team activity in lecture class. I spend the time to share the relevant theories and concepts with the students that I believe to be more important for their future career. Team activities are usually carried out during the tutorial classes for them to discuss their assignments and tutorial activities… (Albert, Line 26-30).

Even though I believe concepts are important. However, I think our students do not like the theory part and find them boring… (Albert, Line 38-39).

This issue most probably because Alfred is a baby boomer's educator who is prone to learn and teach in a traditional instructor-centred learning environment. However, Khaled & Maysoon (2018) emphasised that the business employers are more concerned about the applicants' practical exposure and learning skills as the key employable criteria than their business knowledge.

4.4.4 Personal Effort Issues

Subsequently, the findings gathered from the instructors have generated an additional theme. This theme was "Personal Effort Issue". Personal effort is private aspects of the students' lives to struggle with an earnest attempt to achieve their targeted learning goals (Lang, Wagner, Wrzus & Neyer, 2013). The data collected from the respondents described the personal effort issues faced by the business students. The issues were explained as experienced by one of the instructors, Albert. The instructor explained,

…… The main challenge for me I think is the issue where the majority of the students did not really well-prepared for classes and most of them did not do revision after classes as well… (Albert, Line 44-46).

In regards to the personal effort issue faced by the students, the instructor declared that most of his students were reluctant to prepare for classes and did not do revision and practices after classes as well. In short, preparation before class and revision after class are viewed as crucial for educators to enhance students' understanding and should be incorporated in the Team-Based Learning process. Alternatively, the students might not be able to achieve the proposed learning outcome and objectives. Based on the previous students' results for the studied unit in this research, most of the students could only be able to score a Credit (C) or Pass (P) grade.

This finding is supported by another instructor who proclaimed based on her observation that some of her students were not well-prepared for classes that might eventually affect their academic performance for this particular unit. The quote is shown below as extracted from the instructor.

…… I would like to add on to another issue in which some of my students were not well-prepared for classes. Some of them were not even bother to read the materials provided before class. That's why some of them were not doing well for this unit (Emily, Line 55-58).

Finally, two of the students, Jody and Farhan, was also concerned about the issue in which some students did not fully contribute in their team assessment but got the same marks as other group members. This issue is referred to as the 'free-rider' issue. They revealed that no action was being taken by some of the instructors even after receiving complaints from the other team members regarding this issue. Their response was quoted below: -

… some lecturers and tutors do not deal with free-rider problems even after receiving the complaints (Jody, Line 112-114).

I think something should be done to deal with students who do nothing… but got the same marks as other group members that worked really hard for the assignment (Farhan, Line 118-120).

Overall, four major instructional issues are currently faced by the students who were enrolled in the business courses in a private international higher education institution in Malaysia. These findings were verified by data from both the students and instructors' perspective. These instructional issues are 'Lack of Interactivity', 'Lack of Learning Skills', 'Lack of Practical Exposure, and 'Personal Effort' issues. The main themes and sub-themes generated from the combined analysis of the instructional issues faced by the students based on both the students and instructors' views are presented in Table 4.3.

Table 4.3 Major Themes and Sub-Themes from the Analysis of "Instructional Issues faced by the University Business Students" Based on the Students and Instructors' Responses

Research Question	Main Themes	Sub-Themes
What are the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives?	Lack of Interactivity	Lack of class interaction • Students are not motivated to attend classes. • Traditional and passive lecture environment
		Lack of interaction between students and instructors • Insufficient feedback. • Lack of clear instruction for assessment tasks.
	Lack of Learning Skills	Lack of reading, writing and revising skills.
		Lack of practices in class.
		Inability to relate and apply theoretical knowledge to practical examples.
		Lack of critical thinking and higher-order thinking skills.
	Lack of Practical Exposure	Insufficient knowledge on what is expected in the workplace.
		The instructors are too focus on concept and theory.
	Personal Effort	The students did not fully contribute in team assessments.
		The students did not prepare for classes.
		The students did not do revision after classes.

In order to encounter the above-mentioned instructional issues effectively, the researcher has suggested some feasible solutions that may help to solve these instructional issues via the Team-Based Learning approach. These suggestions will be integrated into the design and development phase of this study. The suggested solutions were compiled and tabulated in Table 4.3.

4.5 Summary of Findings on Instructional Issues Faced by the Students

This section aims to summarise the themes from the interviews with the student and instructor respondents in the needs analysis phase. The findings were vet through by two instructors who are also the experts in the areas of business and Team-Based Learning approach. The summary was done after further discussion with the instructors. The typical instructional issues faced by current business students in a private international higher education institution are noted as follows: (1) Lack of interactivity issues; (2) Lack of Learning skills issues; (3) Lack of practical exposure issues; and (4) Personal efforts to achieve targeted goals issues.

4.6 Recommendations based on the Findings of the Needs Analysis Phase

The findings obtained from the interviews with both the student and instructor respondents provided main themes that were summarised in Table 4.3 above. These themes will then be used as a guideline to design and develop new strategies and methods for the teaching of Team-Based Learning (Refer to Table 4.4).

Table 4.4 Recommendation for the design and development of Team-Based Learning based on the Findings of the Needs Analysis Phase

Instructional Issues	Findings	Recommendations
Lack of Interactivity issues	Lack of class interaction • Students are not motivated to attend classes. • Traditional and passive lecture environment.	There is a need to conduct more interactive Team-Based Learning activities during the lecture and tutorial classes to motivate students' participation.
	Lack of interaction between students and instructors • Insufficient feedback.	Face-to-face continuous feedback should be given throughout the semester.
	• Lack of clear instruction for assessment tasks.	Lecturer and tutor should explain the purpose and procedures of the Team-Based Learning process to the students at the beginning of the semester.
Lack of Learning Skills issues	Lack of reading, writing and revising skills.	Peer assisting is required in the Team-Based Learning activities.
	Lack of practice in class.	There is a need to have more readiness assurance process tests and application exercises in a semester.
	Inability to relate and apply theoretical knowledge to practical examples.	There is a need to incorporate real-life case study in the Team-Based Learning activities to ensure that the students can be able to connect real-world applications of theories and concepts learned.

Table 4.4 (Continued)

Instructional Issues	Findings	Recommendations
	Lack of critical thinking and higher-order thinking skills.	There is a need to design and develop the Team-Based Learning test questions based on both lower order and higher order thinking skills.
Practical Exposure issues	Insufficient knowledge on what is expected in the workplace.	There is a need to link the Team-Based Learning assessment to industry needs to prepare them for their future career.
	The instructors are too focus on concept and theory.	There is a need to include more practical and application questions in the Team-Based Learning assessment.
Personal Efforts issue	The students did not fully contribute in team assessments.	Instructors as facilitators to ensure all the members involved in the team activities.
	The students did not prepare for classes.	There is a need to evaluate the students' understanding and preparedness continuously via tests or quizzes. Blackboard Learning System should be fully utilised in this matter.
	The students did not do revision after classes.	There is a need to replace the final examination with continuous Team-Based Learning assessment.

The needs analysis phase has provided data about the teaching and learning environment of a private international higher education institution and the background of both the student and instructor respondents. In addition, the interview findings also provided an overview of the trends of instructional issues faced by the students who were enrolled in the business courses in a private international higher education institution in Malaysia in the state of Sarawak. These findings indicated that there is a pressing need to introduce Team-Based Learning approach to business education as a new teaching and learning method. The student and instructor respondents supported this method in their narratives. These findings are beneficial when designing and developing Team-Based Learning activities that are socially and culturally pertinent.

The above findings implied that there is a need to include more interactive in-class Team-Based activities to motivate students to attend and participate in lectures and tutorial classes. More practical and real-life based readiness assurance process tests and team application exercises are necessary to be conducted throughout the semester as practices to train the students for future application in the workplace. In conjunction with this, there is a need to evaluate the students' understanding and preparedness continuously via tests or quizzes and eventually replace the final examination with continuous Team-Based Learning assessment, with the condition, continuous feedback should also be provided to the students throughout the semester. Lecturer and tutor should explain the purpose and procedures of Team-Based Learning process clearly to the students at the beginning of the semester. Blackboard Learning System should be fully utilised as a platform to make sure that the students read and prepare before classes.

Additionally, there is a need to incorporate real-life case study in the Team-Based Learning activities, and the instructors will play the role of a facilitator to guide the

students how to connect real-world applications of theories and concepts that they have learned. The facilitators should ensure all the members involved in the team activities to prevent 'free-rider' issue in which some students did not fully contribute in the group assessment but could be able to get the same marks as their group members. Peer assisting is required in the Team-Based Learning activities to help each other with their reading, writing, and revising skills. The instructors and developers are required to design and develop the questions asked in the Individual Tests, Team Tests, and Team Application Exercises in a way that enables the students to relate the learning contents for this unit with other topics and other units. There is an insistent need to design and develop the Team-Based Learning test questions based on both lower and higher-order thinking skills.

Eventually, Team-Based Learning approach is expected to be able to solve the instructional issues faced by the business students as discussed above. Team-Based Learning was chosen as the instructional strategy in this study because this approach was believed to be able to produce a positive effect on learners' abilities to focus on their daily learning (Michaelsen et al., 2008). Team-Based Learning is a teaching and learning strategy to turn their passive learning into active and deep learning (Tweddell et al., 2016), and ensures students to apply the concepts learnt in the problem-solving processes (Michaelsen et al., 2014). Team-Based Learning approach is effective to improve students' learning outcomes and higher-order thinking abilities through active learning in teams (Woerkom & Croon, 2009; Bleske et al., 2016; Kim et al., 2016).

4.7 Summary

This chapter analysed all findings obtained at the preliminary stage to cover Research Question 1. This study deployed a qualitative approach for the data gathering and analysis process. These results are the findings for the needs analysis phase and will be used for interpretation and discussions in Chapter 7.

CHAPTER 5

FINDINGS OF PHASE II: DESIGN AND DEVELOPMENT

5.0 Introduction

This chapter confers the research findings that emerged from the design and development phase of the study. The data collected was analysed and presented based on the second research question. Research question 2 intended to identify which are the elements that should be incorporated into the development of the Team-Based Learning activities for business education in a private international higher education institution based on the expert instructors' views. The purpose of this chapter is to provide descriptions of the research findings that had gathered from the second phase of the study. Generally, this chapter consists of two parts. The first part of this chapter focuses on the design aspects of the Team-Based Learning activities. The second part is on the development of the learning approach.

In the design stage, the researcher planned the Team-Based Learning activities based on the literature reviewed in Chapter 2 and the instructional needs of business students identified in the preliminary phase. The researcher also gathered the views and consensus from two expert instructors. One-to-one semi-structured interviews were conducted with these two expert instructors to validate the developed Team-based Learning activities module which serves as guidance for directions on Team-Based Learning activities to the instructor. The suggested elements to improve Team-based Learning were

gathered and analysed in this study. These findings were then used in the development of the Team-Based Learning approach to refine the learning activities further.

5.1 Designing the Team-Based Learning Activities

The Team-Based Learning activities in this study were designed and developed based on the framework proposed by Whitley et al. (2015), Michaelsen and Sweet (2011), and Huang and Lin (2017) as reviewed in Chapter 2. The students' instructional needs as proposed in Chapter 4 were also taken into consideration when designing the Team-Based Learning activities to overcome the instructional issues faced by the students. The ultimate goal of implementing this new instructional approach is to accomplish mutual objectives of the instructors and learners, which referred to the intended unit outcomes for the unit studied in this research. Intended learning outcomes are statements that specify what a learner should be able to know or do at the end of the lesson because of the learning activities.

5.1.1 Task Analysis Element of KEMP's Model

This step was aligned with the third component of KEMP's Model- Task Analysis. This step was one of the essential components of the model in which the knowledge and procedures to be included in the instruction to assist the students to overcome the instructional issues were determined. According to KEMP's Model, the researcher who was also the designer worked with the subject matter experts, individuals who are an expert in the content area to provide accurate and detailed information for use in designing and developing the instructional unit (Morrison et al., 2007). The unit contents and task components were identified based on the syllabus and curriculum set by the main campus. The assessment tasks consist of Individual Essay, Tests, Group Report, and Group

Presentation. It was decided that the test component which worth 45% of the overall weightage for this unit will be replaced with the Team-Based Learning activities to assist the students to overcome the identified instructional issues.

5.1.2 Instructional Objectives Element of KEMP's Model

The fourth element of KEMP's Model is to determine the instructional objectives. The objectives act as a map for designing the instruction to ensure that the learning activities developed are meant to solve the instructional problems. The instructional objectives are also important to ensure that the strategies and assessments used are appropriate (Morrison et al., 2007). The most critical components of a well-designed learning approach are to ensure that the intended learning objectives (ILO), teaching and learning activities (TLA) and assessment tasks are aligned, and they are supporting each other (Biggs & Tang, 2011).

In this stage, the Team-Based Learning activities and assessment tasks were designed based on the instructional objectives of the studied unit set by the main campus as follow: -

1. Identify and discuss the drivers of diversity in the workplace and describe how diversity affects business practices through collaborative teamwork.
2. Analyze various diversity management practices in terms of their theoretical rationale.
3. Develop an enhanced sensitivity, openness and respect for human diversity including gender, culture, ethnicity, religion, nationality, and other visible and invisible dimensions of diversity.

4. Demonstrate awareness of diversity issues in developing and implementing people management policies and practices in particular HRM functional areas, in a diverse workplace.
5. Communicate effectively as a professional and function as an effective leader in teamwork or as a member of a diverse team.

The unit aims to sensitise students to the importance of fostering an inclusive workplace that manages and leverages diversity in all its forms. This unit focuses particularly on how people management policies and practices facilitate organisational effectiveness through recognising, valuing and accommodating employee diversity. The consequences of a diverse workplace, various diversity management practices, and diverse views on the purpose of a business will be discussed. Whether in domestic or multinational organisations, such practices enable responsiveness to change and complexity and the implementation of sustainable people management practice.

As an international higher education institution, this university is required to design a diverse-cultures curriculum to expand the students' social views across regions and boundaries. As a result, it is essential to design learning activities that concern the university's diversities by focusing on both local and world needs.

5.1.3 Content Sequencing Element of KEMP's Model

Next, the content sequencing element of KEMP's Model was also vital to assist the learners to understand and learn the knowledge in a better way. KEMP's Model believes that the learners can be able to grasp the ideas more efficiently when the information is delivered in a logical sequence. Instructors taught the learning contents in building block sequences by ensuring the students build up solid theory knowledge before they

move up to higher-order thinking. Building block is the foundation of learning before the application of theory. It is essential because our students' thinking is usually not entirely accurate and may contain misconceptions or unstable preconceptions that the instructor must issue for students to accommodate new learning contents fully.

5.1.4 The Framework of the Team-Based Learning (TBL) Design

The lessons of the Team-Based Learning model in this study were designed based on the instructional needs of the students by integrating the design principles of Whitley et al. (2015) and Michealsen and Sweet (2011). These principles provide a unique conceptual framework to implement the Team-Based Learning approach. The task analysis, instructional objectives and content sequencing elements were also incorporated in the framework. Two instructors who are also the experts in Team-based Learning were required to verify that the task analysis and its division into modules are acceptable. Refer to Figure 5.1 below: -

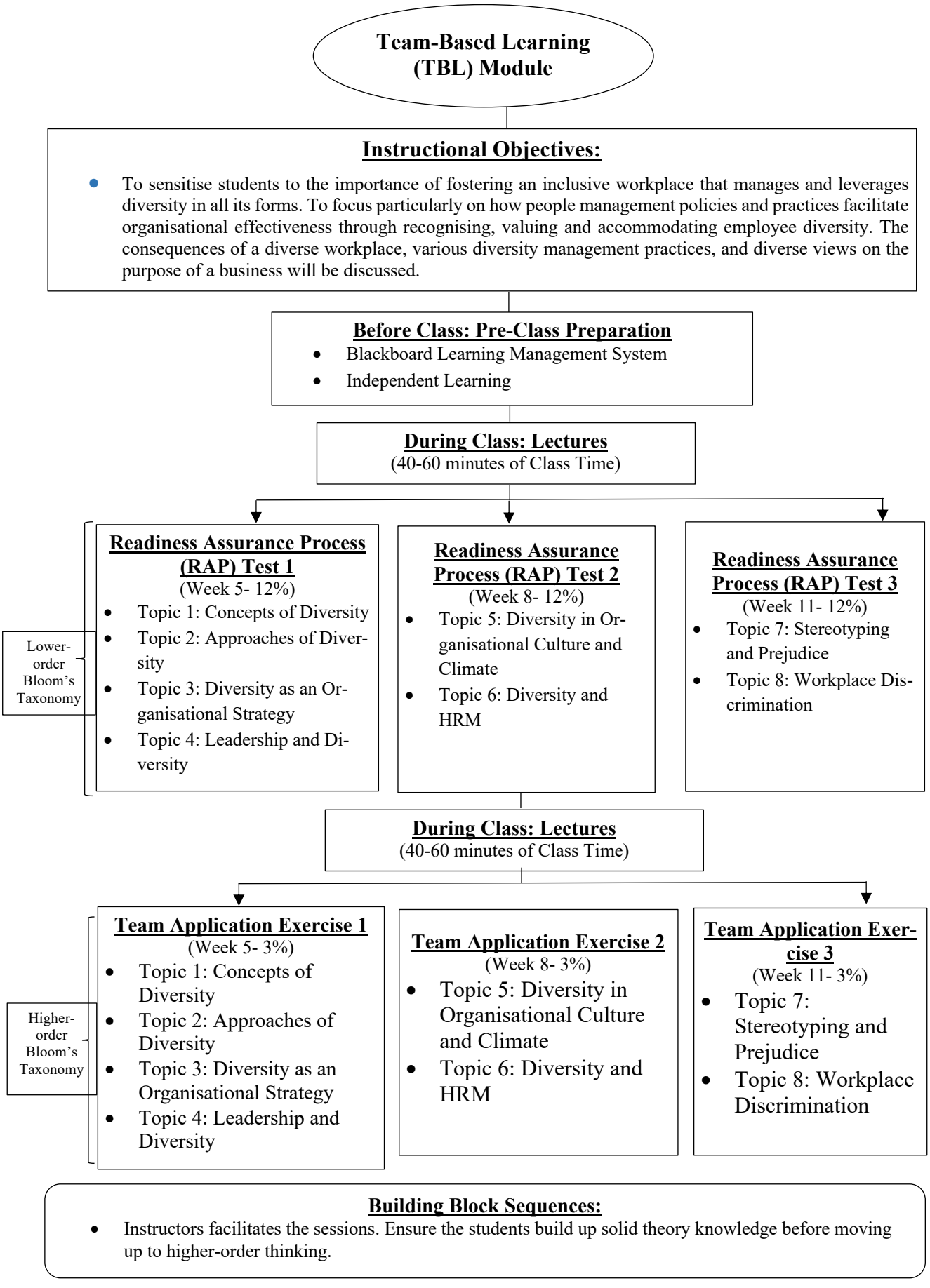


Figure 5.1 Team-Based Learning Design

5.2 Developing the Team-Based Learning Activities

Subsequently, the Team-Based Learning activities were developed by ensuring that the activities are aligned with the 'instructional strategies' and 'designing the message' elements of KEMP's Model (Morrison et al., 2007).

5.2.1 Instructional Strategies and Designing the Message Elements of KEMP's Model

The next two elements of KEMP's Model are instructional strategies and designing the message. Instructional strategies element involves designing and developing the methods of delivering the information creatively and innovatively in order to help the students to integrate the new information with their prior knowledge. Consecutively, the designer will design and develop the message by selecting and arranging the appropriate graphics, text, and pictures for the instructional activities to enhance the readability and understanding of the learners further.

In this stage, the Team-Based Learning activities were designed based on the business students' instructional needs found in the needs analysis phase and the literature framework proposed by Whitley et al. (2015), Michaelsen and Sweet (2011), and Huang and Lin (2017). There are four stages in Team-Based Learning approach, namely Pre-Class Preparation, Individual Readiness Assurance Process Tests, Team Readiness Assurance Process Tests, and Team Application Exercises.

5.2.2 Pre-Class Preparation

Initially, individual pre-class preparation will be conducted out-of-class by providing the students with comprehensive study guides, lecture slides, and web-based

resources via the Blackboard Learning System. Blackboard web-based learning management system is used extensively in the preparation stage to ensure better experiential learning in Team-Based Learning (Pauleen et al., 2004). Figure 5.2 below shows the interface of the Blackboard system.

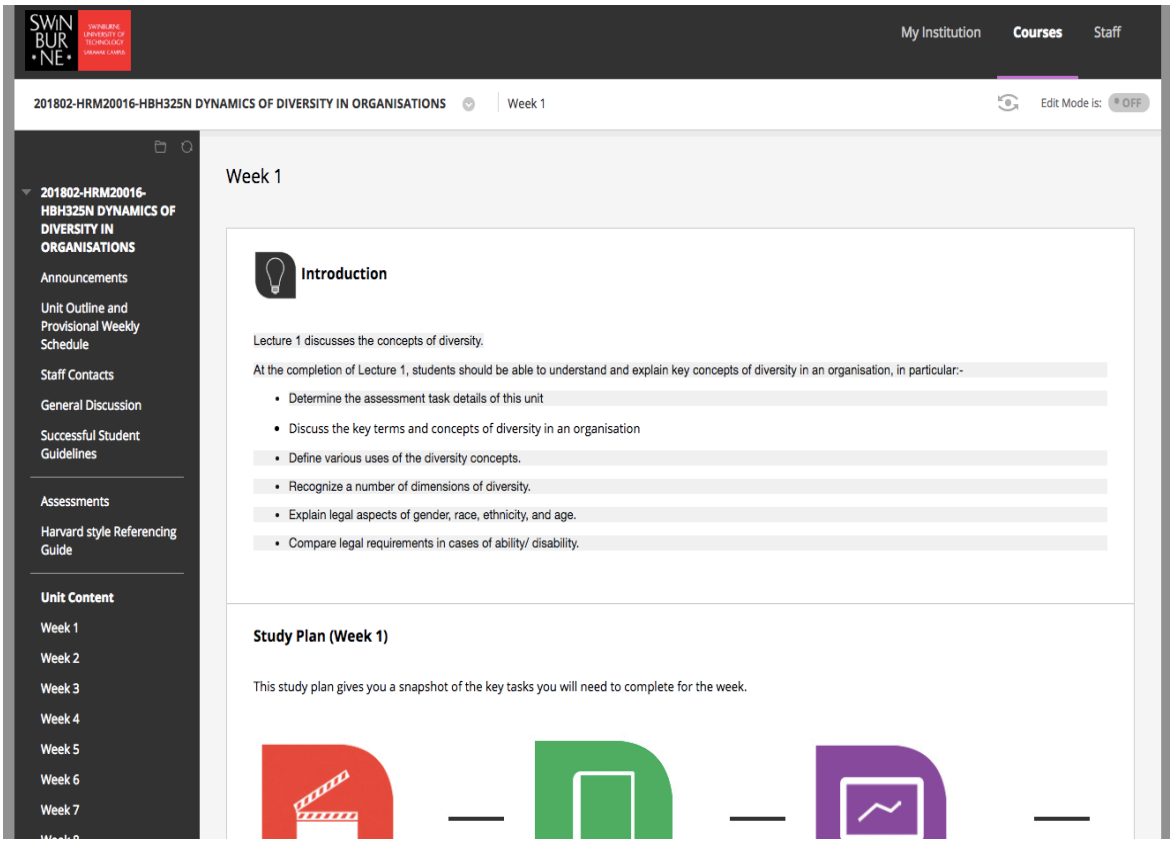


Figure 5.2 Screen capture of The Interface of Blackboard Learning Management System

One of the students' instructional issues is the students were reluctant to prepare for classes. Therefore, the students are required to prepare for classes by reading the materials posted in unit content Week 1-11 as shown in Figure 5.3. They are asked to prepare because their instructor will be assessing them continuously via tests throughout the semester.

Figure 5.3 Screen capture of The Unit Content for Week 1-11

Once clicked on ‘Week 2’ button, for instance, it would bring the user to the learning content that consists of the Introduction (Figure 5.4), Study Plan (Figure 5.5), Reading Materials (Figure 5.6), Lecture and tutorial slides (Figure 5.7), and Self-Assessment Questions (Figure 5.8).

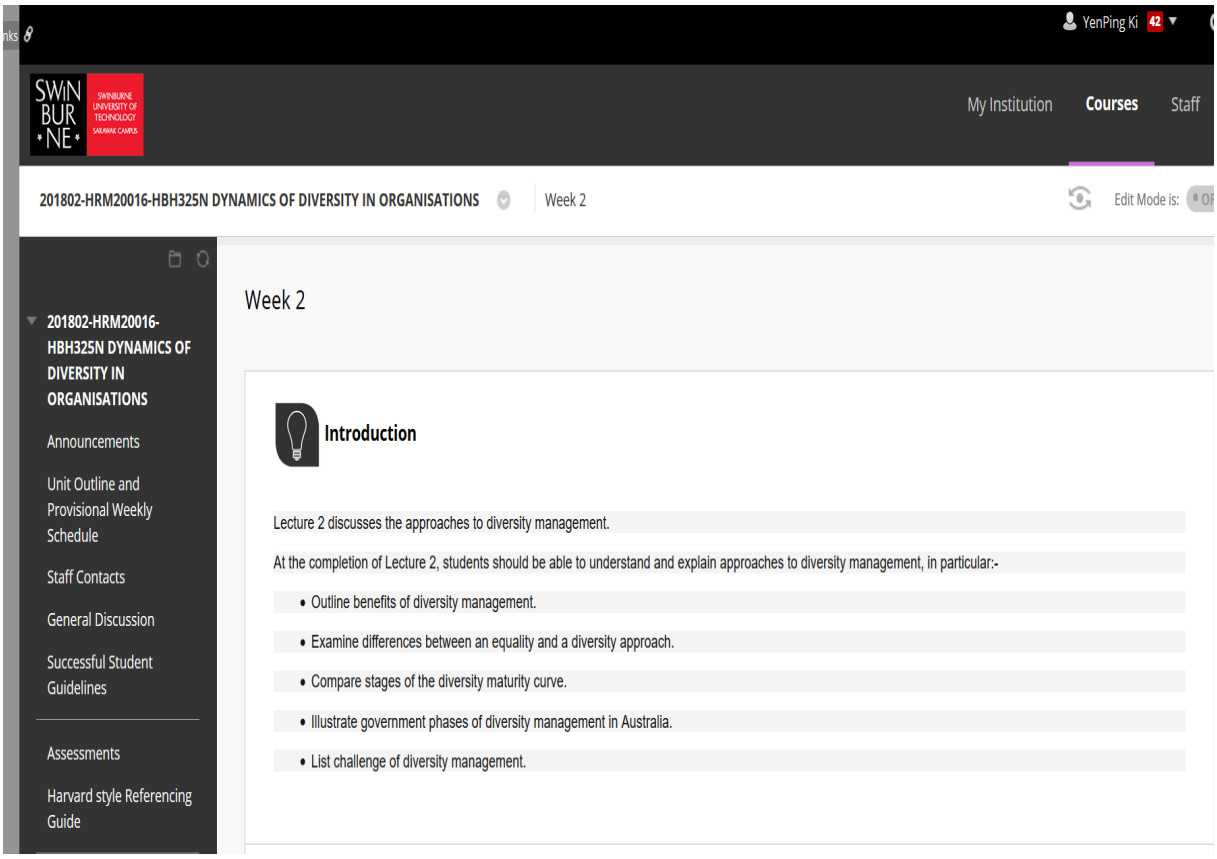


Figure 5.4 Screen capture of the Introduction of Lecture Week 2

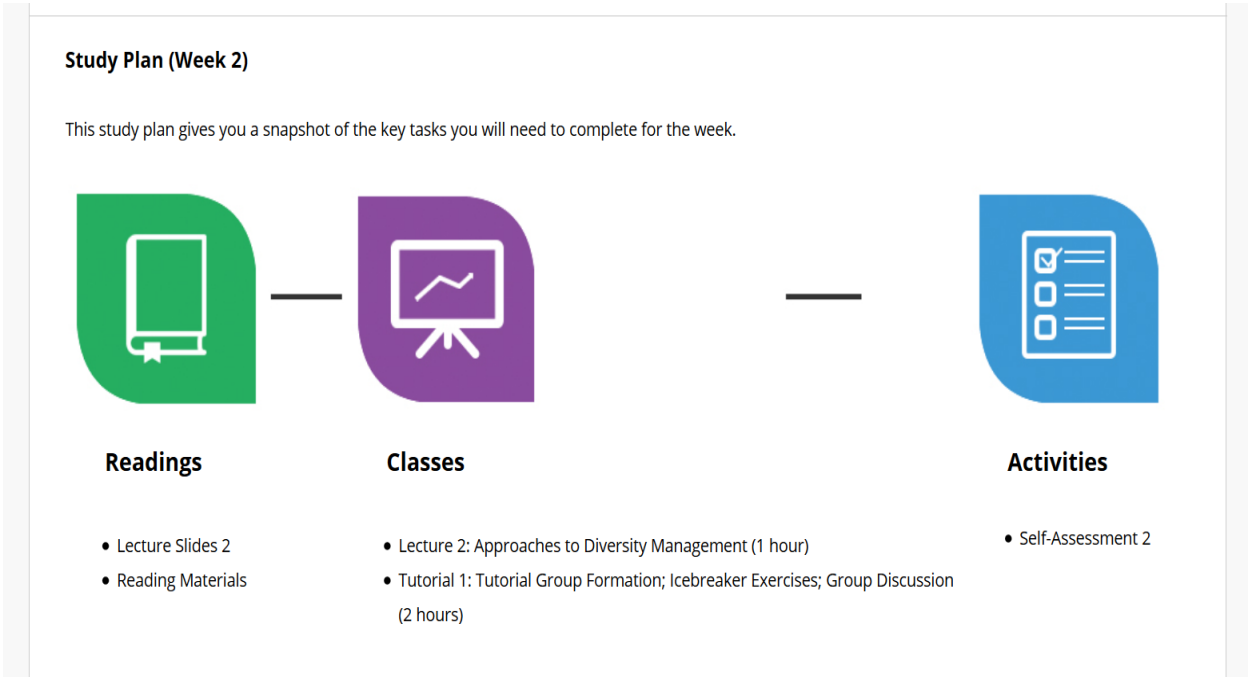


Figure 5.5 Screen capture of the Study Plan for Week 2

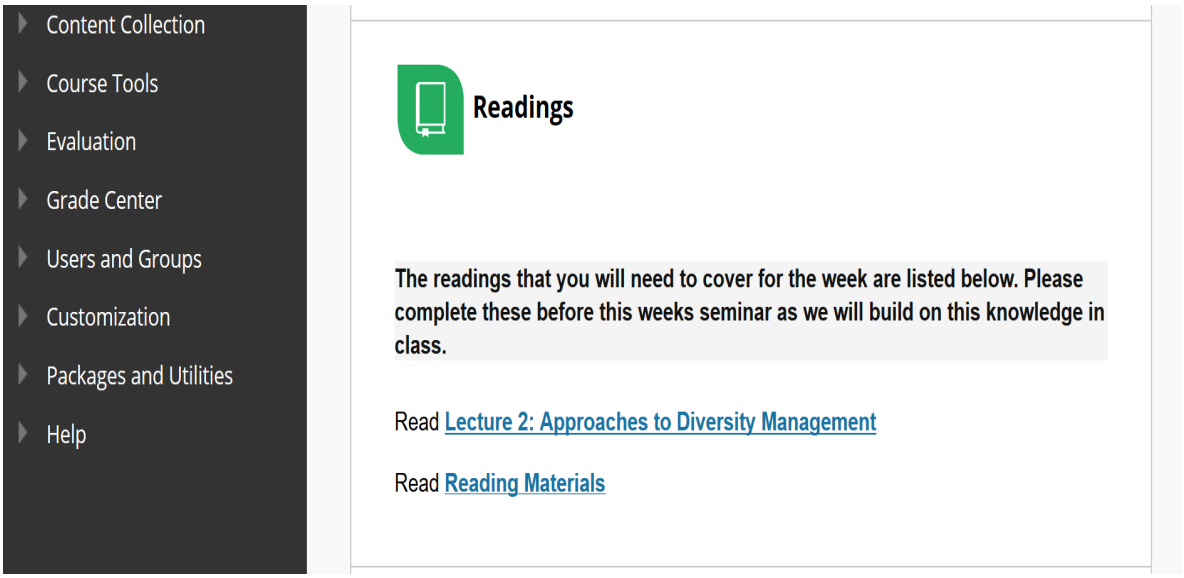


Figure 5.6 Screen capture of the Reading Materials for Week 2

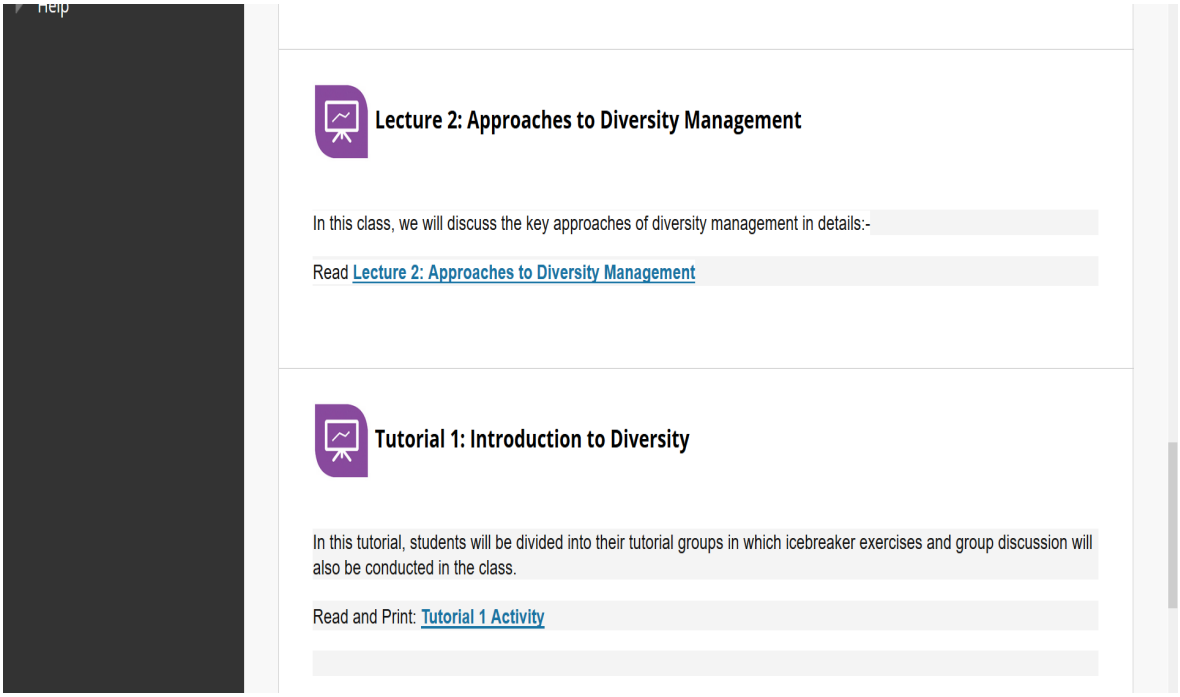


Figure 5.7 Screen capture of the Lecture and Tutorial Slides for Week 2

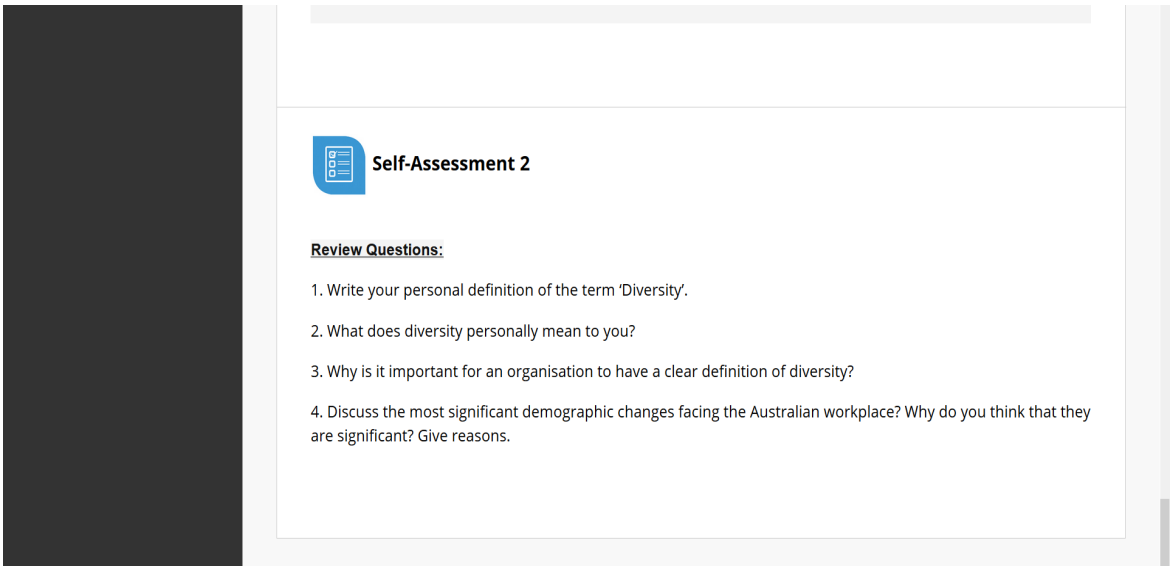


Figure 5.8 Screen capture of the Self-Assessment Questions for Week 2

The students are required to read all the resources before classes. Their class preparedness will be monitored using Student Performance Dashboard and Student Course Report tools of the Blackboard learning system. The interfaces of these two tools are presented in Figure 5.9 and 5.10 (a) and (b) as follow: -

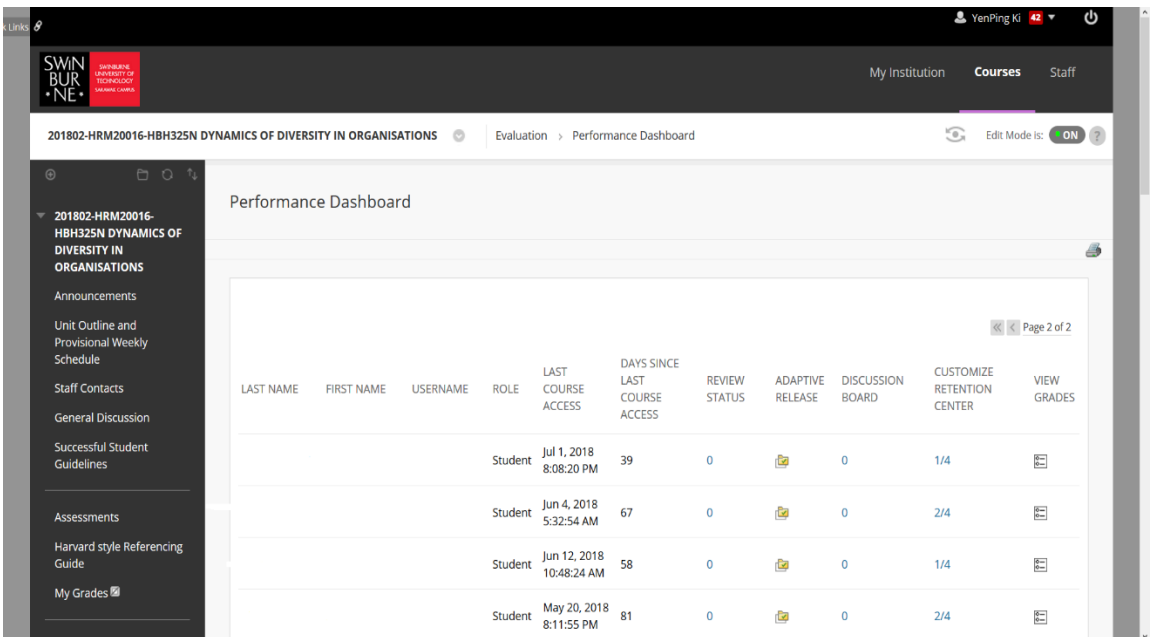
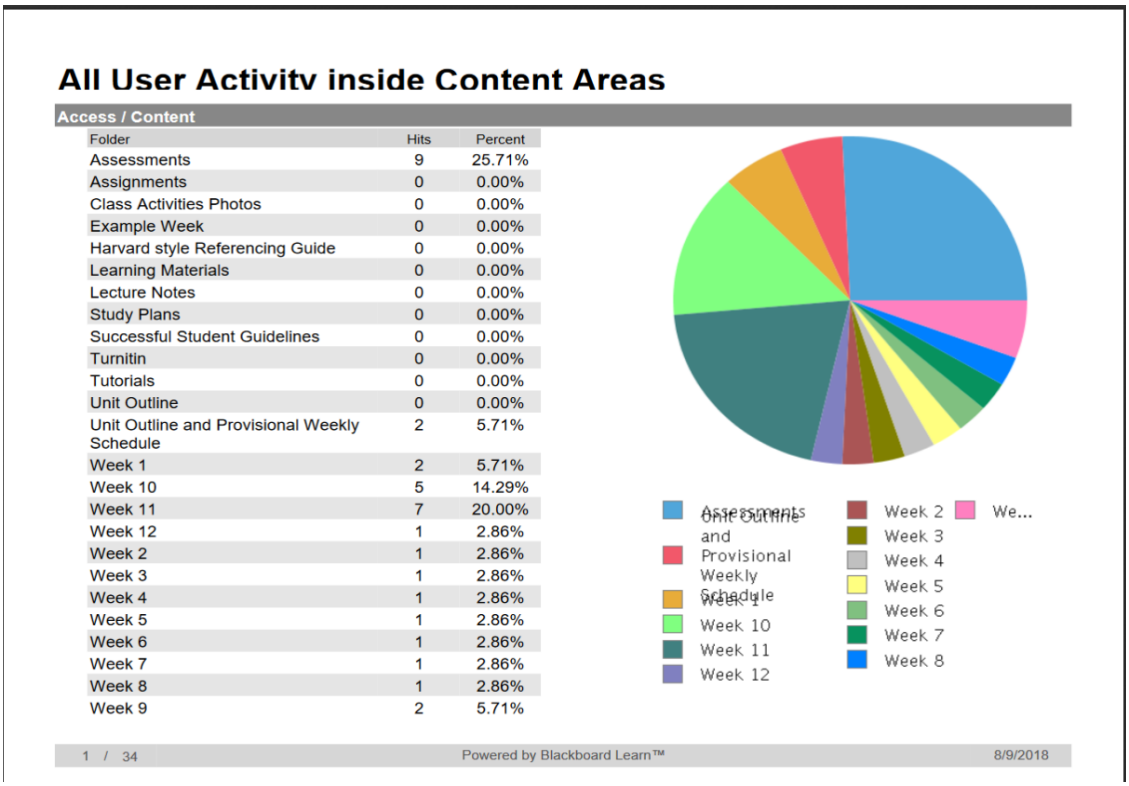


Figure 5.9 Screen capture of the Student Performance Dashboard

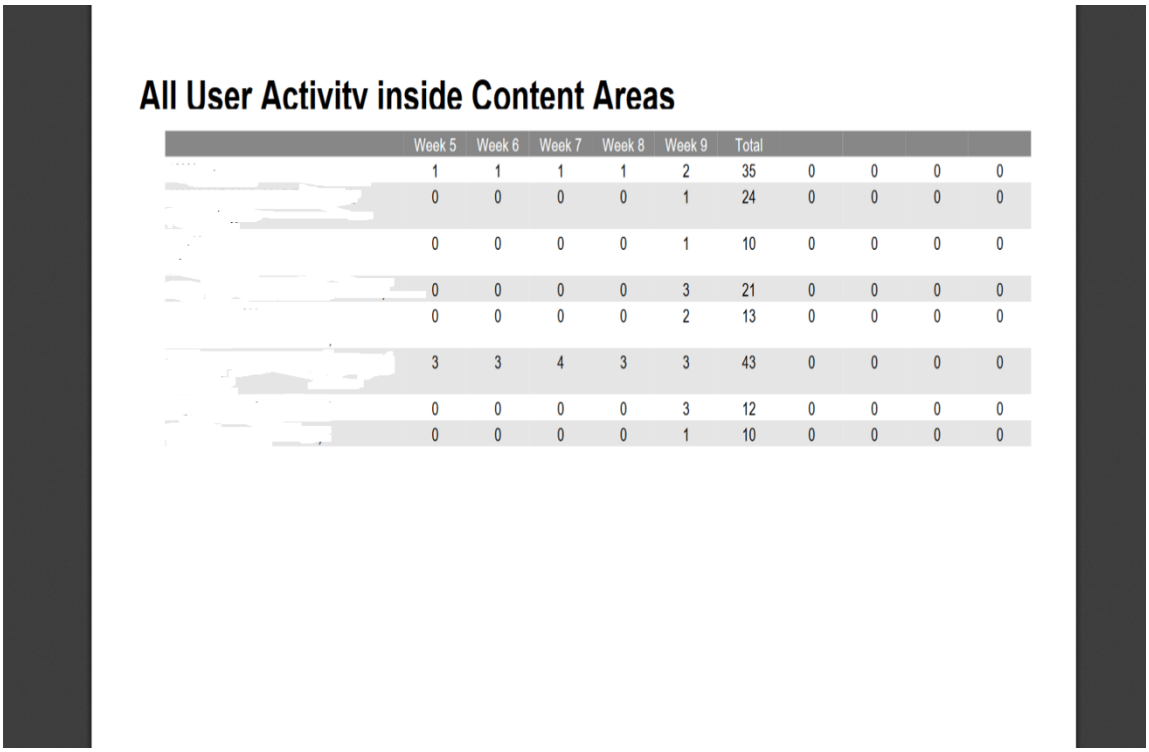


All User Activity inside Content Areas

Access / Content

Folder	Hits	Percent
Assessments	9	25.71%
Assignments	0	0.00%
Class Activities Photos	0	0.00%
Example Week	0	0.00%
Harvard style Referencing Guide	0	0.00%
Learning Materials	0	0.00%
Lecture Notes	0	0.00%
Study Plans	0	0.00%
Successful Student Guidelines	0	0.00%
Turnitin	0	0.00%
Tutorials	0	0.00%
Unit Outline	0	0.00%
Unit Outline and Provisional Weekly Schedule	2	5.71%
Week 1	2	5.71%
Week 10	5	14.29%
Week 11	7	20.00%
Week 12	1	2.86%
Week 2	1	2.86%
Week 3	1	2.86%
Week 4	1	2.86%
Week 5	1	2.86%
Week 6	1	2.86%
Week 7	1	2.86%
Week 8	1	2.86%
Week 9	2	5.71%

Figure 5.10 (a) Screen capture of the Student Course Report



All User Activity inside Content Areas

	Week 5	Week 6	Week 7	Week 8	Week 9	Total				
	1	1	1	1	2	35	0	0	0	0
	0	0	0	0	1	24	0	0	0	0
	0	0	0	0	1	10	0	0	0	0
	0	0	0	0	3	21	0	0	0	0
	0	0	0	0	2	13	0	0	0	0
	3	3	4	3	3	43	0	0	0	0
	0	0	0	0	3	12	0	0	0	0
	0	0	0	0	1	10	0	0	0	0

Figure 5.10 (b) Screen capture of the Student Course Report

As suggested by the students, their instructors and tutors should explain the assessment instructions clearly. Hence, lecturer and tutor will be explaining the purposes and procedures of the Team-Based Learning process to the students in the Week 2 of the semester. The detailed information has also been uploaded to the Blackboard learning system as presented in Figure 5.11, 5.12 (a), 5.12 (b), and 5.12 (c).

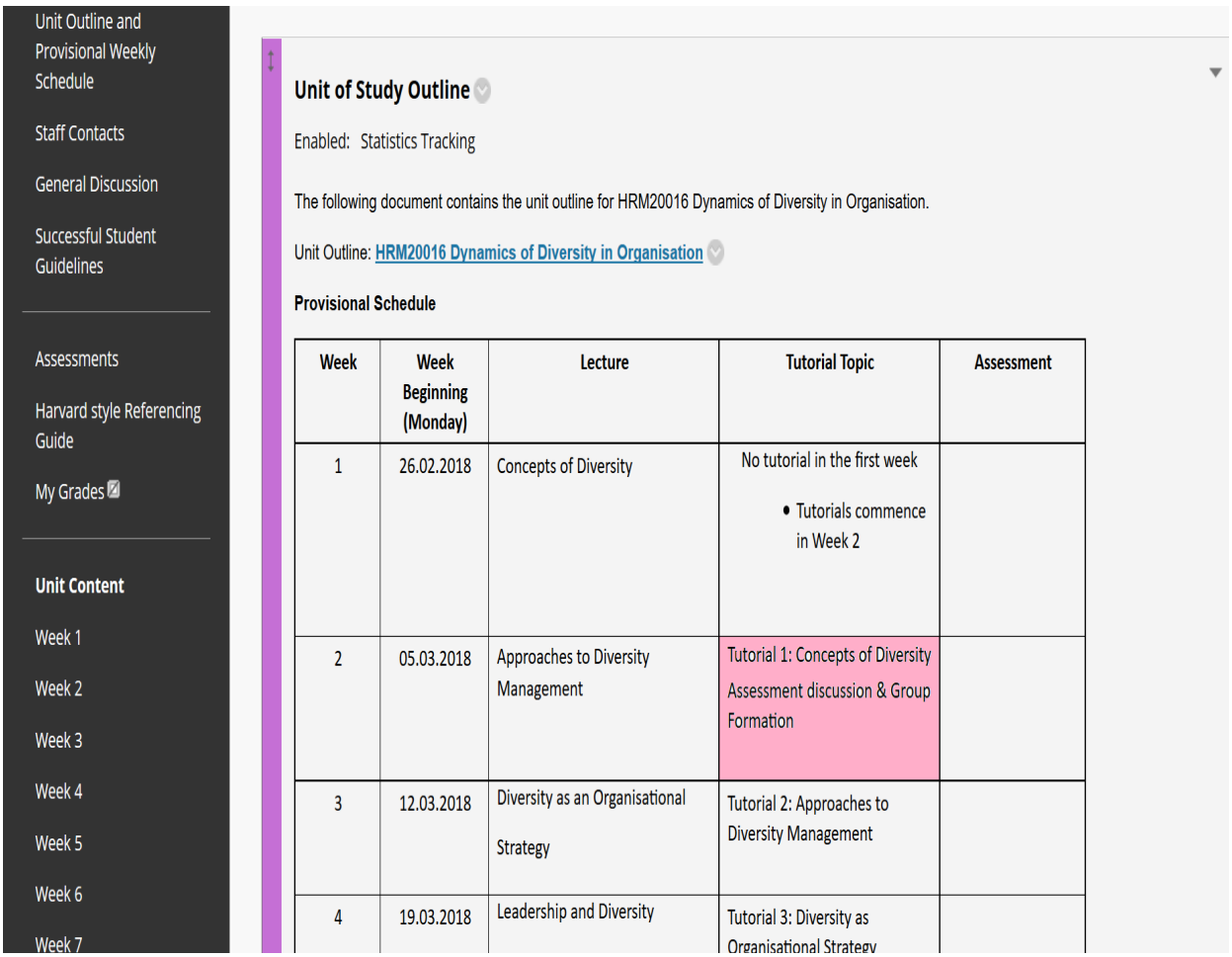


Figure 5.11 Screen capture of the Provisional Schedule

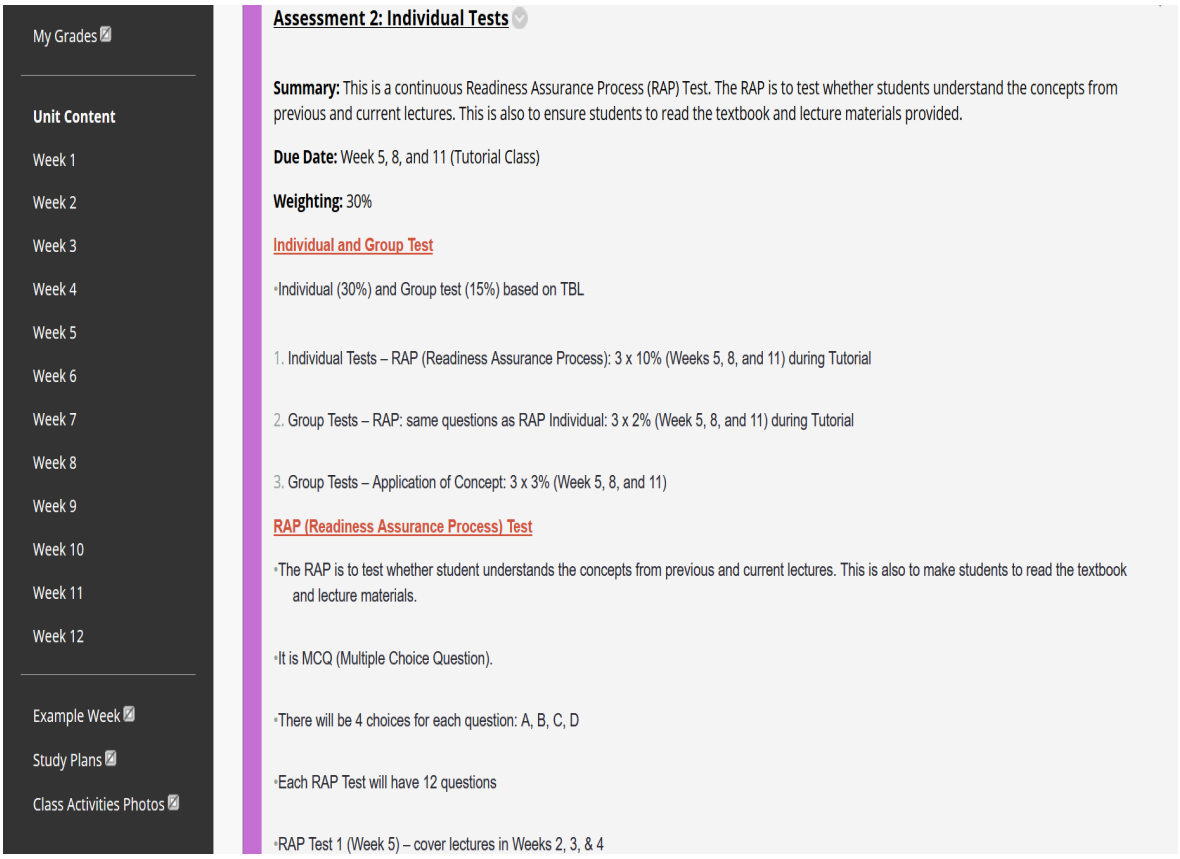


Figure 5.12 (a) Screen capture of the Individual Tests Information

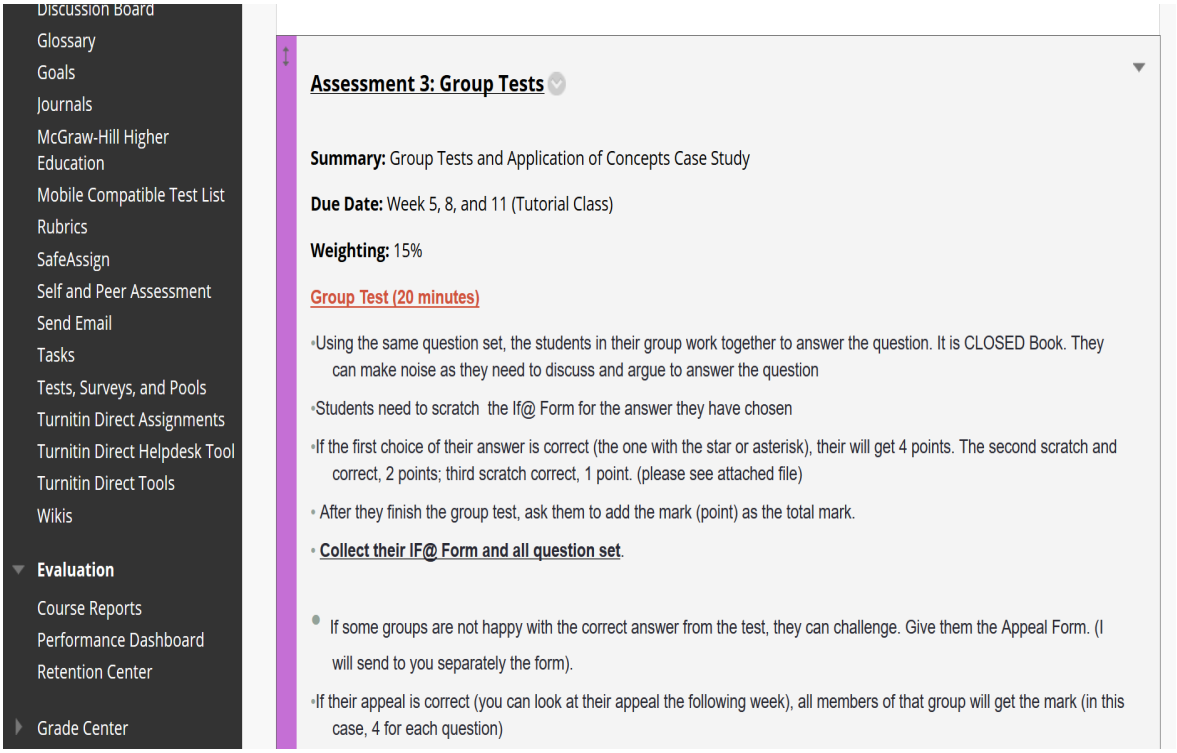


Figure 5.12 (b) Screen capture of the Team Tests Information

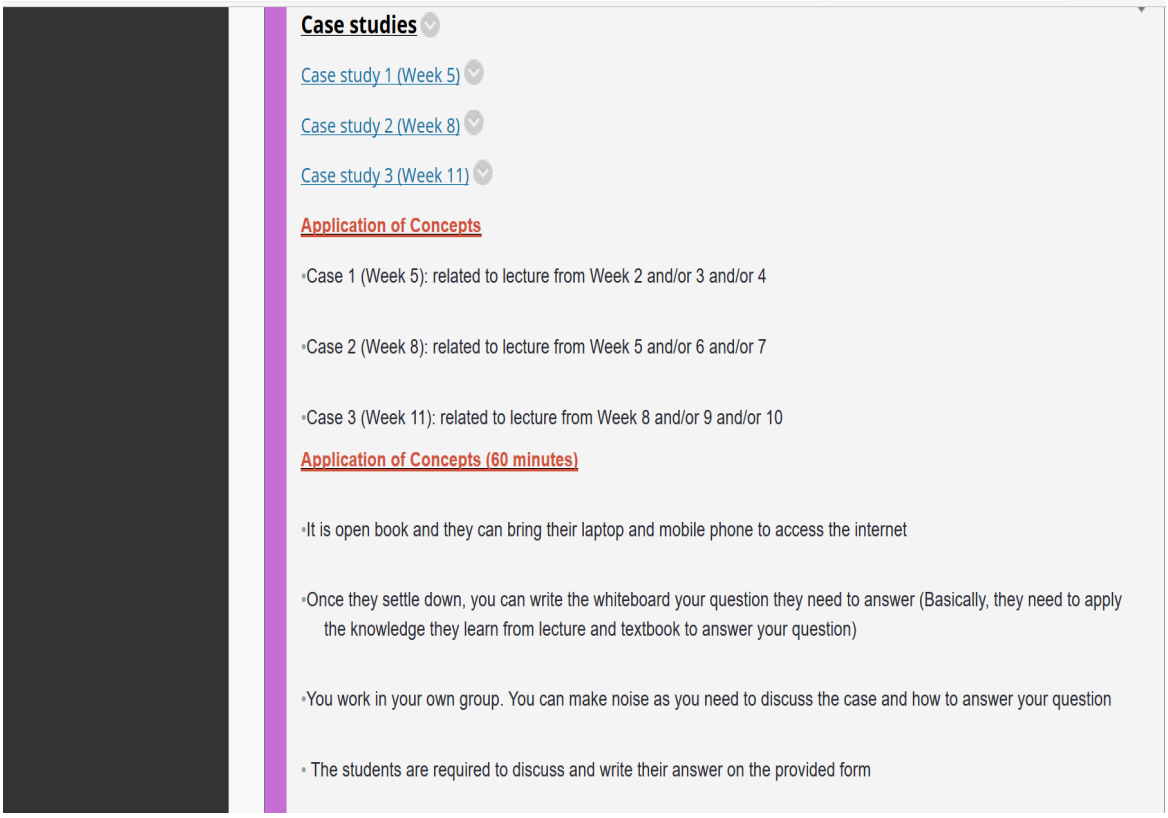


Figure 5.12 (c) Screen capture of the Team Application Exercises Information

Lecturer and tutor should explain the purpose and procedures of the Team-Based Learning process to the students at the beginning of the semester to overcome the lack of clear instruction for assessment tasks issue.

5.2.3 Individual Readiness Assurance Process (RAP) Tests

Next, Individual Tests (30%) and Team Tests (15%) will be conducted based on Team-Based Learning. In order to overcome the students' personal effort issue, the students' understanding, and preparedness are evaluated continuously via tests and team application exercises for three times in a semester in Week 5, 8, and 11 of the study weeks. The instructors will be providing face-to-face feedback to the students continuously throughout the semester. Also, the final examination will be replaced with the three continuous Team-Based Learning assessment in order to motivate students to put more effort

to do revision after classes. The instructional issues identified in the needs analysis phase indicated that there is a need to replace the final examination with continuous assessment and feedback throughout the semester. The assessment tasks details are shown in Figure 5.13 below: -

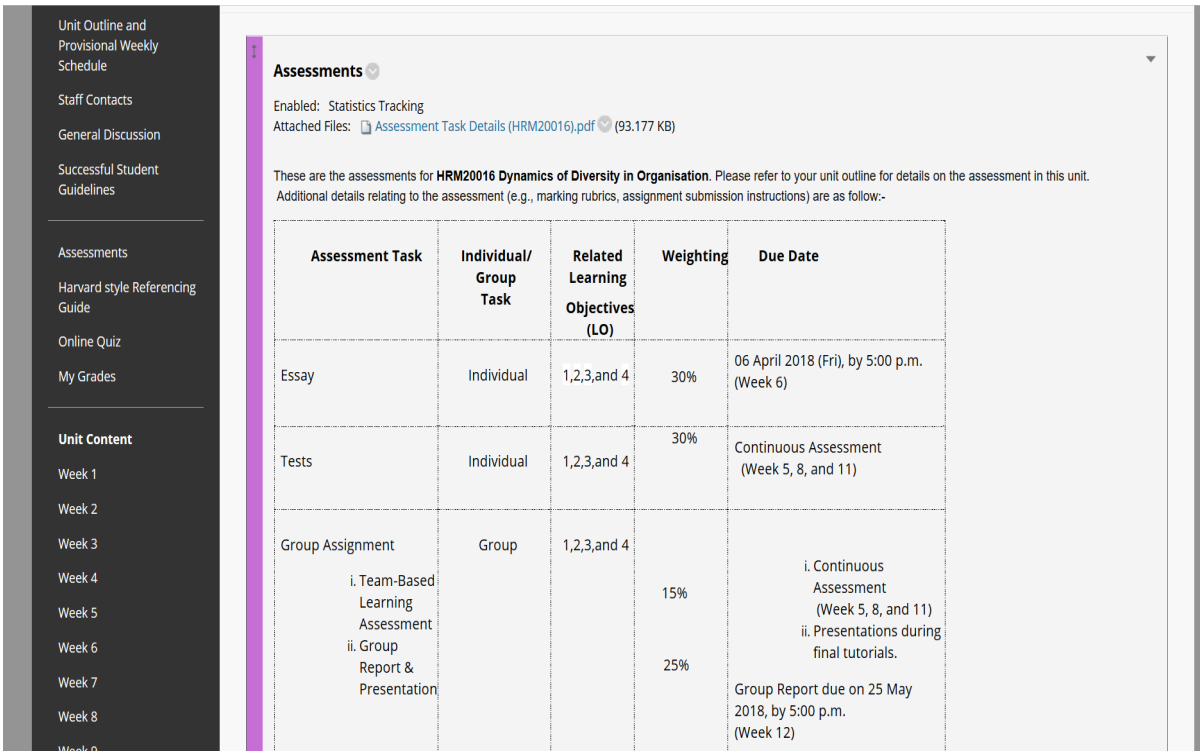


Figure 5.13 Screen capture of the Assessment Task Details

The Individual Test is a continuous Readiness Assurance Process (RAP) Test that is conducted mainly to test whether the students understand the concepts from previous and current lectures. This test is also to ensure the students to read the textbook and lecture materials provided. For the first 30 minutes, students did the individual Readiness Assurance Test (I-RAT) individually.

The individual Readiness Assurance Test (I-RAT) is multiple choices questions that consist of four choices for each question: A, B, C, and D. Each test has 12 questions and four marks were given to each question. If the students were very sure of the answer,

they could give four marks to the proposed answer and zero marks for the rest of the three options. If they were not so sure about the answer, they could allocate the four marks according to the possibilities, as long as the full mark is four. There are five options for possible answers as follow:

Option 1: When you are sure that the correct answer is A

A	B	C	D
4	0	0	0

Option 2: When you are doubtful whether the correct answer is either B or C

A	B	C	D
0	2	2	0

Option 3: When you are quite sure that the correct answer is B, but it is possible to be D as well

A	B	C	D
0	3	0	1

Option 4: When you feel that the correct answer could be A, but B and C are possible to be the answer as well

A	B	C	D
2	1	1	0

Option 5: When you are entirely not sure which is the correct answer

A	B	C	D
1	1	1	1

The main campus of this studied higher education institution recommended sequential Multiple-Choice Questions (SMCQs) method. It is believed that this method can be able to decrease the students' probability of answering accurately by chance and reduce their tendency to copy the answers from peers. This new type of multiple-choice question is used successfully in Italy for many years for pharmacy education. This method is effective in evaluating the students' knowledge and the students prefer this method compared to the traditional multiple-choices approach (Carta, Catalano, Ferappi, Lentini, Palluotto, Tortorella & Tortorella, 2009). This method was adapted from Carta et al. (2009) and being modified in this study with only four choices for each question: A, B, C, and D and five options for possible answers to a question as discussed above. The answer sheet for the individual test is presented in Figure 5.14 as follow: -

HRM20016 Dynamics of Diversity in Organisations
INDIVIDUAL ANSWER SHEET
Readiness Assessment Test 1

Date: _____
Student full name: _____
Name of Group: _____
Tutorial time: _____

Example: Almost sure that B is correct, but answer might possibly be D

	A	B	C	D	Pts.	Answer
	0	3	0	1		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
				TOTAL		

Figure 5.14 Individual Test Answer Sheet

5.2.4 Team Readiness Assurance Process (RAP) Tests

Team Readiness Assurance Process Test (T-RAT) is developed to increase the class interaction among the students and their peers and instructors. The T-RAT required the students to work in teams in order to develop their larning skills such as autonomously criticism, effective communication, team working, and initiative. Peer assisting is required in the Team-Based Learning activities. The instructors play their role as facilitators to ensure all the members involved in the team activities. The individual and team tests questions were attached in Appendix G. The RAP tests questions are designed and developed based on the lower-order Bloom's Taxonomy levels of Remembering (six questions) and Understanding (six questions). The Revised Bloom's Taxonomy action verbs for the questions in all the three RAP tests were summarised in Table 5.1 (a), (b), and (c).

Table 5.1 (a) Summary of the Revised Bloom's Taxonomy Action Verbs for All the Questions in RAP Test 1

RAP Test 1		
Question	Action Verbs	Level in Bloom's Taxonomy
1	Recognize	Understanding
2	Select	Remembering
3	Trace	Understanding
4	Recall	Remembering
5	Identify	Remembering
6	Summarize	Understanding
7	Identify	Remembering
8	Indicate	Understanding
9	Match	Remembering
10	Relate	Understanding
11	Define	Remembering
12	Give example	Understanding

Table 5.1 (b) Summary of the Revised Bloom's Taxonomy Action Verbs for All the Questions in RAP Test 2

RAP Test 2		
Question	Action Verbs	Level in Bloom's Taxonomy
1	Recall	Remembering
2	Select	Remembering
3	Identify	Remembering
4	Indicate	Understanding
5	Explain	Understanding
6	Trace	Understanding
7	Identify	Remembering
8	Associate	Understanding
9	Estimate	Understanding
10	Recognize	Understanding
11	Find	Remembering
12	Define	Remembering

Table 5.1 (c) Summary of the Revised Bloom's Taxonomy Action Verbs for All the Questions in RAP Test 3

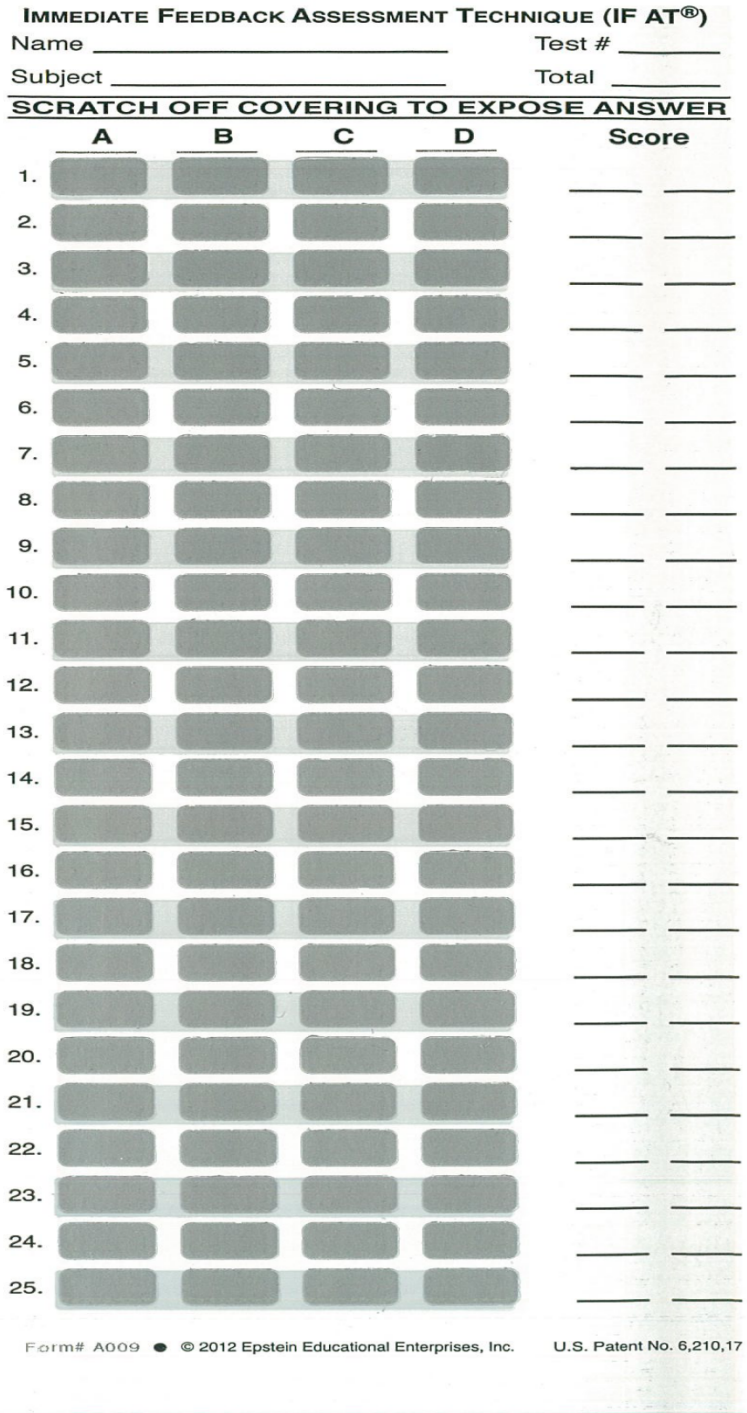
RAP Test 3		
Question	Action Verbs	Level in Bloom's Taxonomy
1	Define	Remembering
2	Identify	Remembering
3	Relate	Understanding
4	Associate	Understanding
5	Match	Remembering
6	Select	Remembering
7	Express	Understanding
8	Identify	Remembering
9	Give example	Understanding
10	Relate	Understanding
11	Trace	Understanding
12	Select	Remembering

The students are required to answer the questions in teams using the same questions set as the I-RAT. This test is to overcome the lack of class interactivity issue as determined in needs analysis phase. It was a closed book test, but the students could make noise, as they needed to discuss and argue to answer the question. The instructions are student-centred with the instructors and tutors as their facilitators. The instructors play a role as facilitator to make sure that their teams consisted of diverse team members with different genders, academic and cultural background, races, ethnicities, and academic abilities. The students are allowed to select their team members as long as their teams consisted of diverse members as shown in the Figure 5.15. The facilitators will ensure all the team members involved in the team activities to prevent free-rider issue that referred to the problem where some students are not fully contribute in the team assessments.

Figure 5.15 Team-Based Learning Activities Conducted in Semester 2, 2017 (Pilot Study)

The main difference between I-RAT and T-RAT is that the students are required to scratch the IF-@ Form for the answers they choose in the T-RAT. This method is adapted from Michaelsen and Sweet (2011). If the first choice of their answer were correct (the one with the star or asterisk), they would get 4 points. The second scratch and

correct, 2 points; third scratch correct, 1 point. The IF-@ Form was shown in Figure 5.16 as follow: -


IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)

Name _____ Test # _____

Subject _____ Total _____

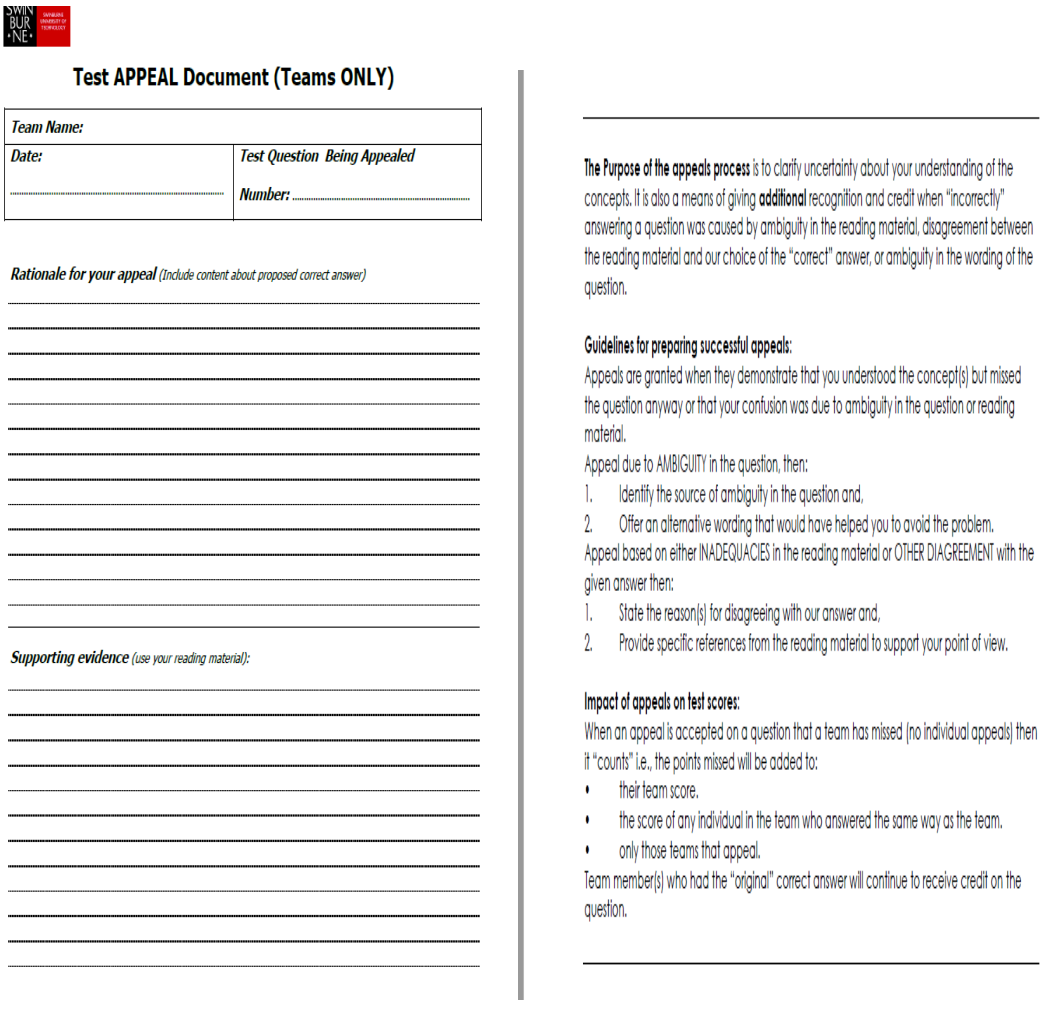
SCRATCH OFF COVERING TO EXPOSE ANSWER

	A	B	C	D	Score	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						
21.						
22.						
23.						
24.						
25.						

Form# A009 ● © 2012 Epstein Educational Enterprises, Inc. U.S. Patent No. 6,210,17

Figure 5.16 IF-@ Form

If some groups were not happy with the correct answer from the test, they could challenge. An Appeal Form will be given to them. If their appeal were correct as they could look at their appeal the following week, all members of that group would get the mark. In this case, four marks were given for each question. Answer-until-correct assessment method was practised in the tests to provide immediate feedback to the students and instructor. Farland et al. (2015) found out that answer-until-correct assessment method can be able to increase exam scores and improve the students' perceptions of the quality of their team interaction. The appeal form was presented in Figure 5.17 below: -



Test APPEAL Document (Teams ONLY)

Team Name:	
Date:	*Test Question Being Appealed* *Number:* .....

Rationale for your appeal *(Include content about proposed correct answer)*

Supporting evidence *(use your reading material):*

The Purpose of the appeals process is to clarify uncertainty about your understanding of the concepts. It is also a means of giving **additional** recognition and credit when "incorrectly" answering a question was caused by ambiguity in the reading material, disagreement between the reading material and our choice of the "correct" answer, or ambiguity in the wording of the question.

Guidelines for preparing successful appeals:

Appeals are granted when they demonstrate that you understood the concept(s) but missed the question anyway or that your confusion was due to ambiguity in the question or reading material.

Appeal due to AMBIGUITY in the question, then:

1. Identify the source of ambiguity in the question and,
2. Offer an alternative wording that would have helped you to avoid the problem.

Appeal based on either INADEQUACIES in the reading material or OTHER DIAGREEMENT with the given answer then:

1. State the reason(s) for disagreeing with our answer and,
2. Provide specific references from the reading material to support your point of view.

Impact of appeals on test scores:

When an appeal is accepted on a question that a team has missed (no individual appeals) then it "counts" i.e., the points missed will be added to:

- their team score.
- the score of any individual in the team who answered the same way as the team.
- only those teams that appeal.

Team member(s) who had the "original" correct answer will continue to receive credit on the question.

Figure 5.17 Team Test Appeal Form

5.2.5 Team Application Exercises

Finally, Team Application Exercises (TAE) is the last assessment of Team-Based Learning activities to enhance class interaction. The TAE tests questions are prepared based on the higher-order Bloom's Taxonomy levels of Applying (one question), Analyzing (one question), Evaluating (one question), and Creating (one to two questions). The team application exercises cases and questions were attached in Appendix H. The Revised Bloom's Taxonomy action verbs for the questions in all the three TEA tests were summarised in Table 5.2 (a), (b), and (c).

Table 5.2 (a) Summary of the Revised Bloom's Taxonomy Action Verbs for All the Questions in TAE Test 1

TAE Test 1		
Question	Action Verbs	Level in Bloom's Taxonomy
1	Construct	Creating
2	Outline	Analyzing
3	Report	Applying
	Recommend	Evaluating

Table 5.2 (b) Summary of the Revised Bloom's Taxonomy Action Verbs for All the Questions in TAE Test 2

TAE Test 2		
Question	Action Verbs	Level in Bloom's Taxonomy
1	Construct	Creating
2	Outline	Analyzing
	Discuss	Applying
3	Propose	Creating
	Recommend	Evaluating

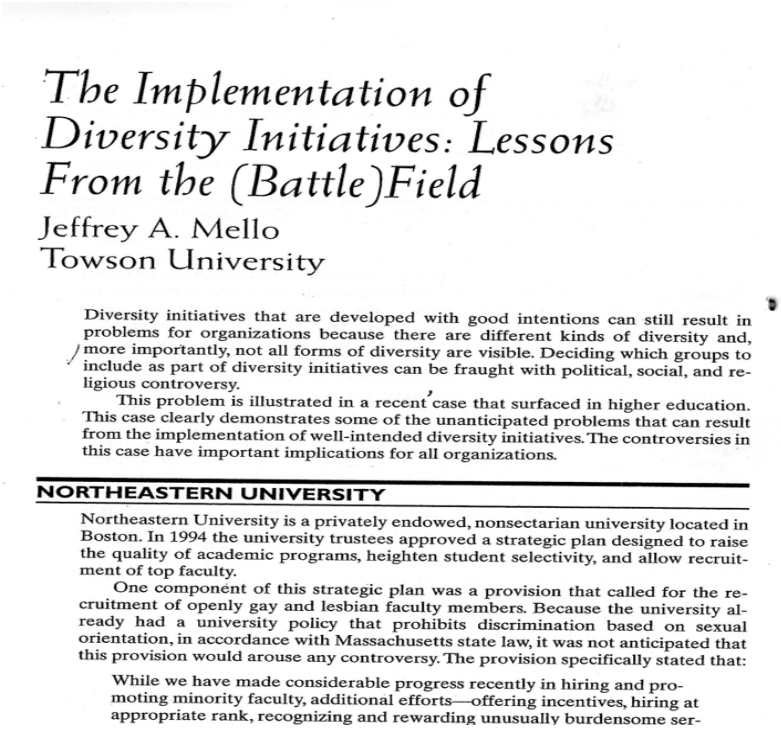
Table 5.2 (c) Summary of the Revised Bloom's Taxonomy Action Verbs for All the Questions in TAE Test 3

TAE Test 3		
Question	Action Verbs	Level in Bloom's Taxonomy
1	Construct	Creating
2	Outline	Analyzing
	Propose	Creating
3	Articulate	Applying
	Recommend	Evaluating

The student needs analysis revealed that there is a need to incorporate real-life case study in the Team-Based Learning activities to ensure that the students can be able to connect real-world applications of theories and concepts learned. There is also a need to link the Team-Based Learning assessment to industry needs and to include more practical application in the assessment to prepare the students for their future career. Therefore, real-life industry cases are developed for the TAE tests to train the students to relate the theories and concepts learned to current industry needs. The TAE assessment questions are designed based on the higher-order Bloom's Taxonomy levels of Applying, Analyzing, Evaluating, and Creating as discussed before. Generally, the students are asked to apply the knowledge they learnt from lecture and textbook to answer those questions. The instructors play the role as a facilitator to guide the students how to connect real-world applications of theories and concepts that they have learned.

The students are required to discuss the cases and answer the given questions in teams. Peer assisting is essential in the Team-Based Learning activities to help each other with their reading, writing, and revising skills. The instructors and developers designed and developed the questions in a way that is practical to enable the students to apply and relate the learning contents for this unit with other topics and other units. The developer is using real-life cases to let the students relate the theoretical concepts learned to the real-

life industry needs. The headlines of the three cases used were shown in Figure 5.18 (a), (b), and (c) as follow: -



The Implementation of Diversity Initiatives: Lessons From the (Battle)Field

Jeffrey A. Mello
Towson University

Diversity initiatives that are developed with good intentions can still result in problems for organizations because there are different kinds of diversity and, more importantly, not all forms of diversity are visible. Deciding which groups to include as part of diversity initiatives can be fraught with political, social, and religious controversy.

This problem is illustrated in a recent case that surfaced in higher education. This case clearly demonstrates some of the unanticipated problems that can result from the implementation of well-intended diversity initiatives. The controversies in this case have important implications for all organizations.

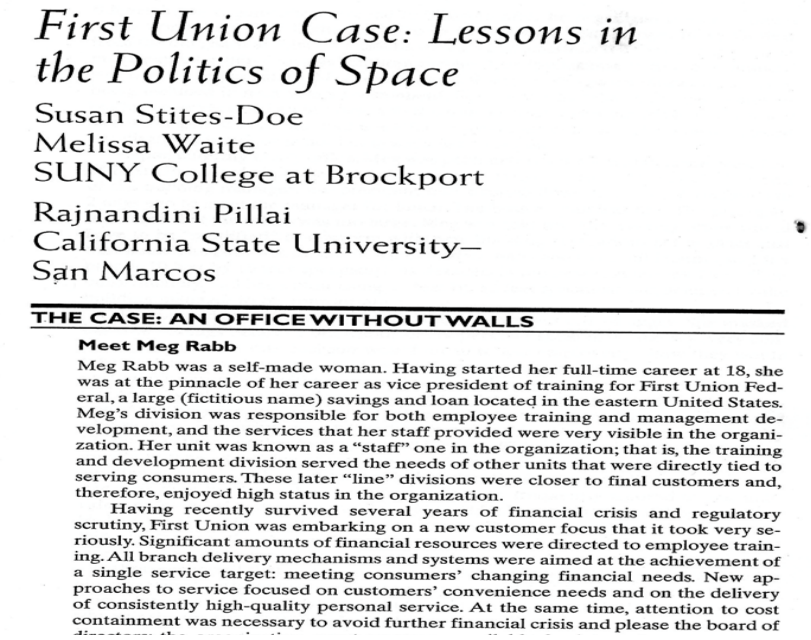
NORTHEASTERN UNIVERSITY

Northeastern University is a privately endowed, nonsectarian university located in Boston. In 1994 the university trustees approved a strategic plan designed to raise the quality of academic programs, heighten student selectivity, and allow recruitment of top faculty.

One component of this strategic plan was a provision that called for the recruitment of openly gay and lesbian faculty members. Because the university already had a university policy that prohibits discrimination based on sexual orientation, in accordance with Massachusetts state law, it was not anticipated that this provision would arouse any controversy. The provision specifically stated that:

> While we have made considerable progress recently in hiring and promoting minority faculty, additional efforts—offering incentives, hiring at appropriate rank, recognizing and rewarding unusually burdensome ser-

Figure 5.18 (a) Screen capture of the Team Application Exercises 1



First Union Case: Lessons in the Politics of Space

Susan Stites-Doe
Melissa Waite
SUNY College at Brockport

Rajnandini Pillai
California State University–
San Marcos

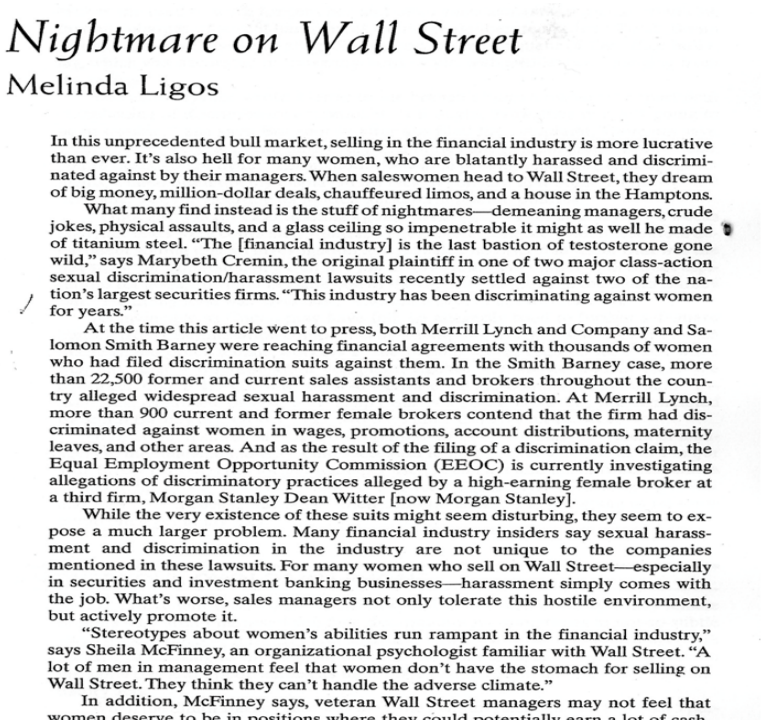
THE CASE: AN OFFICE WITHOUT WALLS

Meet Meg Rabb

Meg Rabb was a self-made woman. Having started her full-time career at 18, she was at the pinnacle of her career as vice president of training for First Union Federal, a large (fictitious name) savings and loan located in the eastern United States. Meg's division was responsible for both employee training and management development, and the services that her staff provided were very visible in the organization. Her unit was known as a "staff" one in the organization; that is, the training and development division served the needs of other units that were directly tied to serving consumers. These later "line" divisions were closer to final customers and, therefore, enjoyed high status in the organization.

Having recently survived several years of financial crisis and regulatory scrutiny, First Union was embarking on a new customer focus that it took very seriously. Significant amounts of financial resources were directed to employee training. All branch delivery mechanisms and systems were aimed at the achievement of a single service target: meeting consumers' changing financial needs. New approaches to service focused on customers' convenience needs and on the delivery of consistently high-quality personal service. At the same time, attention to cost containment was necessary to avoid further financial crisis and please the board of

Figure 5.18 (b) Screen capture of the Team Application Exercises 2



Nightmare on Wall Street

Melinda Ligos

In this unprecedented bull market, selling in the financial industry is more lucrative than ever. It's also hell for many women, who are blatantly harassed and discriminated against by their managers. When saleswomen head to Wall Street, they dream of big money, million-dollar deals, chauffeured limos, and a house in the Hamptons.

What many find instead is the stuff of nightmares—demeaning managers, crude jokes, physical assaults, and a glass ceiling so impenetrable it might as well he made of titanium steel. "The [financial industry] is the last bastion of testosterone gone wild," says Marybeth Cremin, the original plaintiff in one of two major class-action sexual discrimination/harassment lawsuits recently settled against two of the nation's largest securities firms. "This industry has been discriminating against women for years."

At the time this article went to press, both Merrill Lynch and Company and Salomon Smith Barney were reaching financial agreements with thousands of women who had filed discrimination suits against them. In the Smith Barney case, more than 22,500 former and current sales assistants and brokers throughout the country alleged widespread sexual harassment and discrimination. At Merrill Lynch, more than 900 current and former female brokers contend that the firm had discriminated against women in wages, promotions, account distributions, maternity leaves, and other areas. And as the result of the filing of a discrimination claim, the Equal Employment Opportunity Commission (EEOC) is currently investigating allegations of discriminatory practices alleged by a high-earning female broker at a third firm, Morgan Stanley Dean Witter [now Morgan Stanley].

While the very existence of these suits might seem disturbing, they seem to expose a much larger problem. Many financial industry insiders say sexual harassment and discrimination in the industry are not unique to the companies mentioned in these lawsuits. For many women who sell on Wall Street—especially in securities and investment banking businesses—harassment simply comes with the job. What's worse, sales managers not only tolerate this hostile environment, but actively promote it.

"Stereotypes about women's abilities run rampant in the financial industry," says Sheila McFinney, an organizational psychologist familiar with Wall Street. "A lot of men in management feel that women don't have the stomach for selling on Wall Street. They think they can't handle the adverse climate."

In addition, McFinney says, veteran Wall Street managers may not feel that women deserve to be in positions where they could potentially earn a lot of cash

Figure 5.18 (c) Screen capture of the Team Application Exercises 3

5.3 The Consensus of Expert Instructors towards the Developed Team-Based Learning Approach

One-to-one semi-structured interviews were conducted with two expert instructors to validate the developed Team-based Learning activities module which serves as guidance for directions on Team-Based Learning activities to the instructor. Besides, the interviews were also intended to identify the elements that should be incorporated in the development of the Team-Based Learning activities for business education in a private international higher education institution. This regard is to answer Research Question 2 (RQ2).

5.3.1 Description of the Expert Instructors

This study is design-based research in which the learning intervention was being designed and developed in collaboration with other expert practitioners in HRM discipline to discuss and negotiate its implementation. The experts comprised of a male and a female instructor. They were the same two instructor respondents interviewed in the needs analysis phase to ensure consistent findings. These two respondents were selected fundamentally based on their willingness to contribute worthwhile information and insight to the researcher regarding the Team-Based Learning approaches that they have gone through with their students in the previous semesters. Also, they were already in the research loop since the preliminary phase, and they were expected to be more aware of the business students' instructional needs as identified and confirmed by them before.

The experts had expertise and experience in the following areas: Pedagogy, Research, Industrial, Team-Based Learning (TBL), Human Resource Management (HRM) and International Business (IB). The instructors had a minimum of 12 years and a maximum of 23 years of experience in their field of expertise. See Table 5.3 for details of the experts.

Table 5.3 Profile of the Expert Instructor Respondents (n=2)

Position	Sex (M/F)	Pedagogy	Research	Industrial	TBL	HRM	IB	Experience (Year)
Senior Lecturer and program coordinator	F	√	√	√	√	√		12
Senior Lecturer	M	√		√	√	√	√	23

5.4 Findings based on Interviews with the Expert Instructors

The findings obtained from the interviews with the expert instructors aimed to examine their thought about Team-Based Learning, the limitations of this learning approach, and the methods and strategies to improve Team-Based Learning for an identified business unit in a private higher education institution based on the experts' perspective. The researcher proposed four interview questions to the experts in the interview sessions.

The data collected from the experts is mainly used to answer Research Question 2, concerning the methods and strategies to improve Team-Based Learning in higher education. The findings were analysed and presented in Table 5.4 as below.

Table 5.4 Main Themes and Sub-Themes from the analysis of Methods and Strategies to Improve Team-Based Learning Based on Instructor Respondents Perspective

Research Question 2	Main Themes	Sub-Themes
What are the experts' views on the elements that should be incorporated in the development of the Team-Based Learning activities for business education in a private international higher education institution?	Pre-Class Preparation	Prepare and upload short lecture video to the Blackboard before class.
	Case Study Team Application Exercises	Extend the time allocated from 1 hour to 1 hour and 30 minutes.
		Allocate 30 minutes for team presentation activity after the team application exercises.
		Wrap up session by the tutors after the team application exercises.
		Give the students options either to type or to write their answers for the team application exercises.

The respondents described the methods and strategies by using various keywords and word phrases. There were two main themes derived from the analysis of the gathered data as discussed in this section. The themes were 'Pre-Class Preparation' and 'Case Study Team Application Exercises'. The experts based on their prior experience suggested these methods and strategies and observations to further refine the design and development principles used in this study.

5.4.1 Pre-Class Preparation

Based on the experts' prior experience of conducting Team-Based Learning activities for more than three semesters, they commented that the students were not doing well in their Individual Tests and Team Application Exercises. Both of the experts pointed out that this problem was occurred most probably due to the lack of preparation among the students. Their responses quoted,

... I found that the students were not doing quite well in their individual tests and application exercises (Albert, Line 27-29).

... The main issue would be the preparation issue. There were students who did not perform well in their Individual Tests because of not well-prepared for class (Emily, Line 22-23).

The learning materials in the Blackboard Learning System were claimed as adequate for the tests. However, the respondents believed that short lecture videos for specific topics are essential to assist the students in their pre-class preparation stage to enhance their understanding and eventually to improve their scores for the individual tests, notably. Even though lectures should be conducted after the test, according to the

literature, but the instructors still feel that brief lecture should be provided to the students before classes as preparation. The respondents asserted,

... It would be good if short lecture video could be uploaded to the Blackboard before the class (Emily, Line 23-25) ...

I suggest to firstly… erm… to prepare short video lecture for the students for certain topics (Emily, Line 36-37).

... even though lectures should come after the tests, but I still think that brief lecture should be given to the students before class, as preparation (Albert, Line 38-40).

5.4.2 Case Study Team Application Exercises

According to the experts, time management is one of the instructional obstacles of Team-Based Learning. Time management is the process of planning for the time spent on each activity to maximise the effectiveness of the Team-Based Learning process. One of the experts, Albert shared his experience that one of his tutorial classes for last semester was at 8:30 a.m. It was challenging for the students from this tutorial class to arrive earlier to the class to prepare for the team application exercises assessment. The assessment usually started sharp at 8:40 a.m. and ended at 9:40 a.m. Some of the students always came late and eventually could not be able to complete the tasks given on time. This response served as a reminder to the students for better time management, particularly for morning classes.

… Extra time should also be given. Some of the tutorial classes was at 8:30 morning. We usually started our application exercises at 8:40 and ended at 9:40. However, some students could not be able to make it and, as a result… could not complete the tasks on time… (Albert, Line 35-38).

Another expert, Emily also supported Albert's suggestion to extend the time allocated for the team application exercises from 1 hour to 1 hour and 30 minutes. The respondent described,

… Some students also commented about the time given to answer the application exercises were not sufficient (Emily, Line 23-25).

Maybe we can extend the time from 1 hour to 1 hour 30 minutes, maybe… (Emily, Line 26-27).

To improve the students' performance for the case study team application exercises, one of the instructors suggested allocating at least 30 minutes to conduct team presentations after the team application exercises. He believed that team presentation is crucial to ensure intense learning and quality thinking among the students. This method is essential to enhance quality information exchange among the students. Another respondent who proposed a wrap-up session to be carried out by the tutors after the team application exercises as follow up further supported this recommendation. The respondents asserted,

… To increase the students' performance for application exercises, few minutes, maybe 30 minutes… should be allocated for team presentation activity after the application exercises to ensure intense learning and quality thinking among the students, and also… enhance quality information exchange among the students… (Albert, Line 31-35).

… I personally think that there must be a follow up after the application exercises to make sure that all the team members learn in the activities. For instance, err… wrap up session by the tutors (Emily, Line 30-32).

Lastly, one of the respondents emphasised the need to offer the students an option either to type or to write their answers for team application exercises on the answer scripts provided. This suggestion is because some of the students were more comfortable typing their answers rather than writing. Her feedback described,

… some students also recommended to replace the written answer scripts for application exercise with typing since some of them are more comfortable to type their answers rather than writing it down… (Emily, Line 27-30).

… suggested to give the students option whether to type or to write their answers for the application exercises… (Emily, Line 38-39).

5.5 Refinement of Team-Based Learning Activities

The development of the Team-Based Learning activities also took into account the information gathered from the expert instructors' reviews to improve the written Team-Based Learning module. The learning approach was further refined based on the suggestions proposed by the experts. The main themes and sub-themes from the analysis of Methods and Strategies suggested were verified and confirmed by these two expert instructors again before the refinement. The refinement was done for the pre-class preparation and case study team application exercises of the Team-Based Learning approach.

According to expert consensus, short lecture videos for specific topics could be used to assist the students to understand better in their pre-class preparation stage, which will eventually improve their tests performance. Short lecture videos and relevant video clips for specific topics that aligned with the learning content were included in the Blackboard learning system to enhance the preparation phase of the Team-Based Learning process. In Week 1 lecture, for example, the students were required to participate in the E-tivity by answering a few questions in the Blackboard via the General Discussion Board after watching the lecture video. The example of E-tivity for week one lecture was shown in Figure 5.19 (a) and (b).

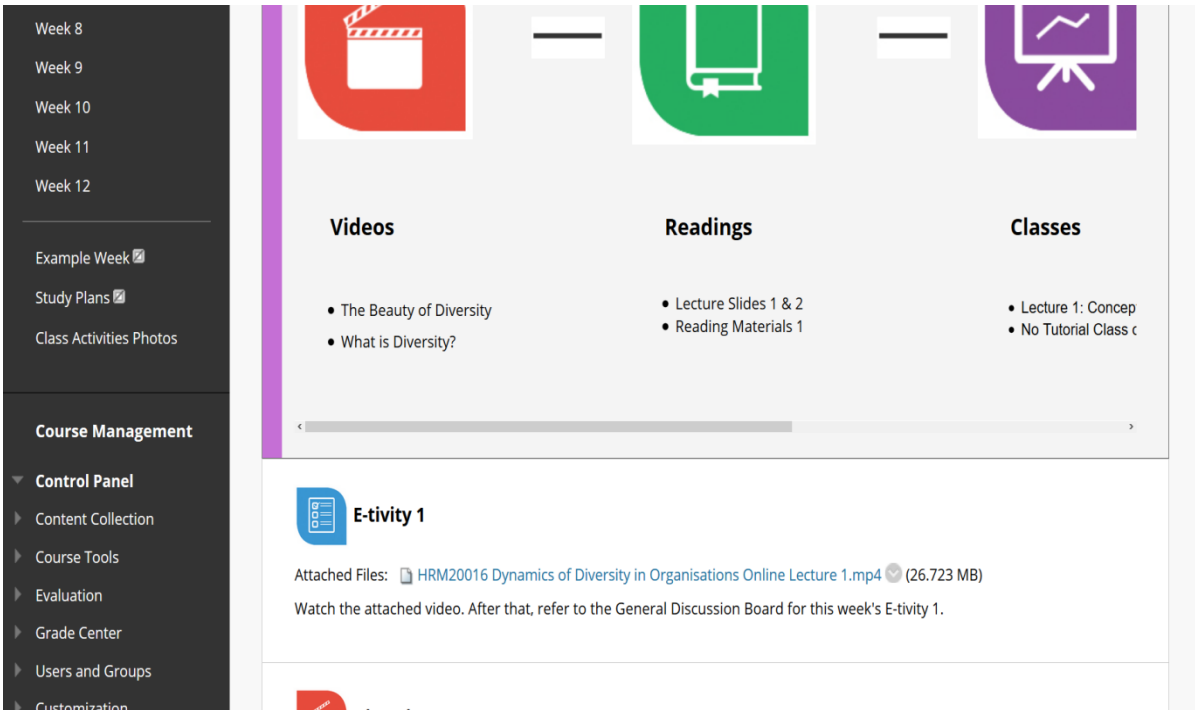


Figure 5.19 (a) Screen capture of the E-tivity for Week 1 Lecture

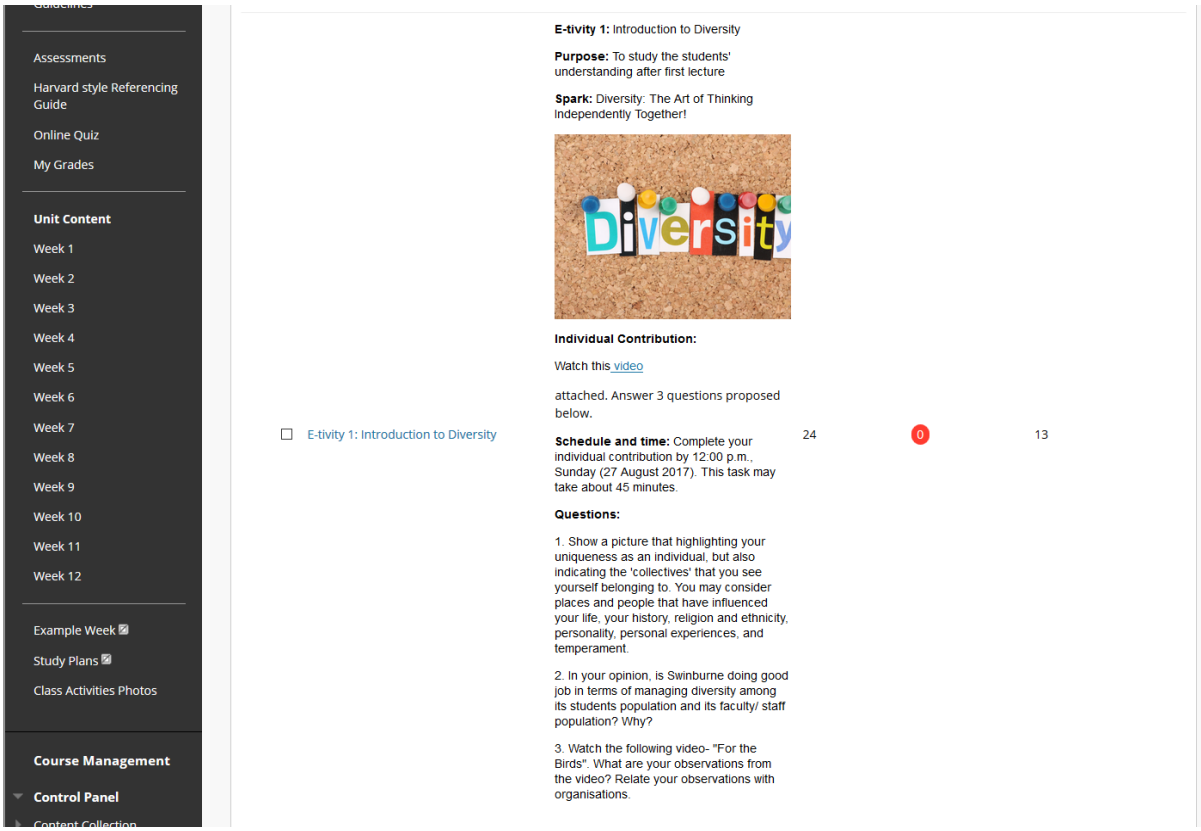


Figure 5.19 (b) Screen capture of the E-tivity for Week 1 Lecture

Short lecture videos for specific topics were developed as shown in Figure 5.20. However, most of the video clips were only embedded from the relevant YouTube videos due to time constraint as presented in Figure 5.21. More lecture videos will be developed gradually in the future iterations of Team-Based Learning.

Figure 5.20 Screen capture of the Developed Lecture Video

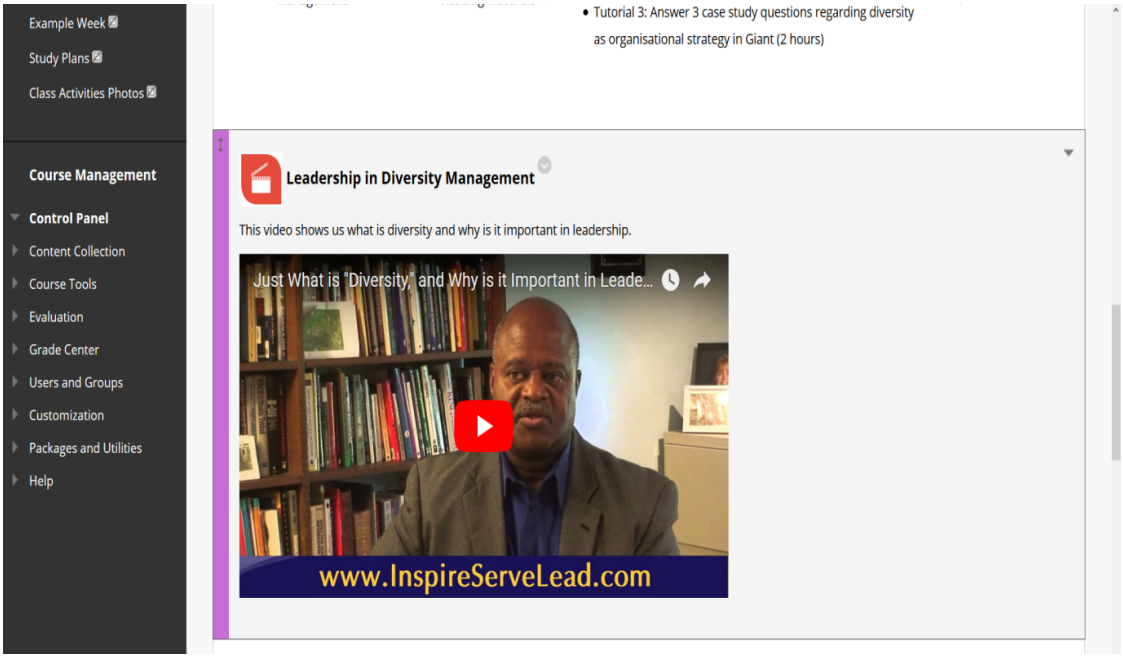


Figure 5.21 Screen capture of the Embedded YouTube Video

In order to improve the case study team application exercises, the students were given an option either to write the answers on the answer scripts provided or to type out their answers and email them to their instructor to save time and costs. Additionally, the time allocated for the team application exercises was also being extended from 1 hour to 1 hour and 30 minutes (90 minutes) to make sure that all the teams could be able to complete all the questions proposed. The screen capture of the instruction and time allowed for the team application exercises are shown in Figure 5.22 below:-

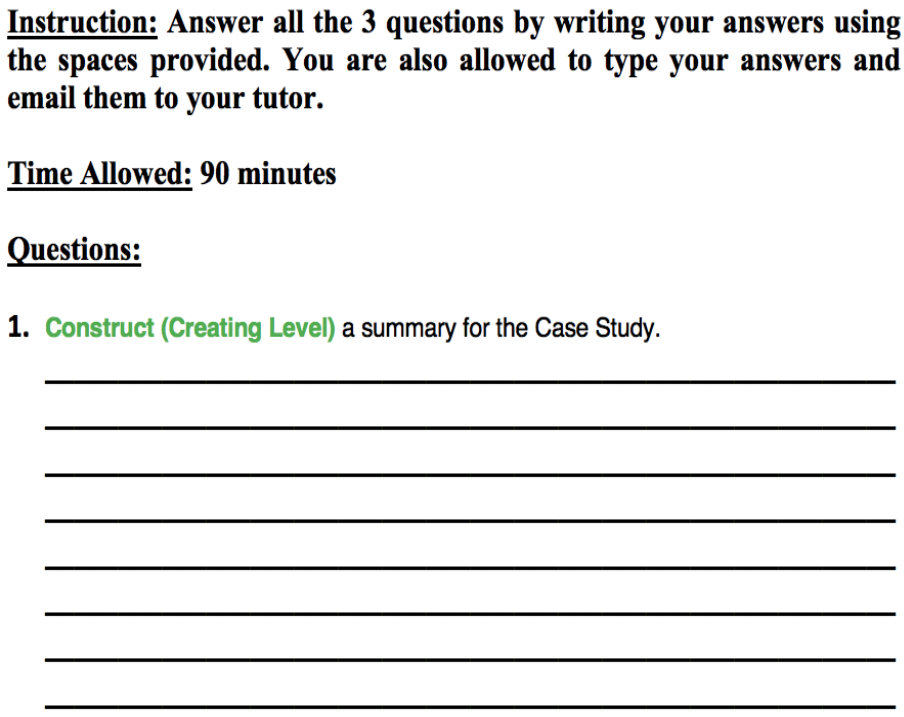


Figure 5.22 Screen capture of the Instruction and Time Allowed for the Team Application Exercises

Subsequently, 30 minutes were allocated for team presentation immediately after the team application exercises to enhance the students' understanding of theories and concepts via inter-teams' discussion and debates. Ultimately, the instructors would

perform a wrap-up session to summarise the answers from the presented teams after the team presentation.

5.6 Summary

The development phase of this study involved the design and refinement of the Team-Based Learning activities for business education in a private international higher education institution. The developed learning activities were validated and confirmed by two expert instructors to achieve consensus with regards to the methods and strategies to improve Team-Based Learning. This chapter analysed and summarised the findings for the design and development phase of the study and will be used for interpretation and discussions in Chapter 7. A qualitative approach has been utilised for the data analysis process for Research Question 2. The developed learning approach was refined based on the suggested methods and strategies to improve the implementation of Team-Based Learning in business education. The refined learning activities were implemented and discussed in the next chapter.

CHAPTER 6

FINDINGS OF PHASES III AND IV: IMPLEMENTATION AND EVALUATION

6.0 Introduction

This chapter presents the analyses of research findings collected from the third and final phases of the study. After the implementation of the learning approach, the students were required to fill in a survey to perceptions on the methods and strategies to further improve the Team-Based Learning in the future iterations. The final phase is evaluation phase that aims to assess the effectiveness and usability of Team-Based Learning approach in business education through the students' perceptions towards this learning approach and the relationship between the students' perception towards Team-Based Learning and their learning outcomes. As discussed in Chapter 3, this research is design-based, and it just focused on one group of students. This research primarily aims to learn more about Team-Based Learning approach to design and develop new strategies to fulfil the needs of both the students and instructors in future business education.

The initial part of this chapter discusses the reliability analysis and the information of respondents in this study. The research findings were discussed in four parts. The first part presented the students' perception towards Team-Based Learning which was measured by the pre-implementation survey and post-implementation survey scores. The difference between the surveys scores was compared using a paired sample t-test method.

The second part discussed the students' suggestions for the methods and strategies to improve Team-Based Learning for business education. The third part reported the relationship between the students' perception towards Team-Based Learning and their learning outcomes. These quantitative data were analysed based on its Pearson correlation coefficient. Finally, the last part of this chapter will summarise the qualitative and quantitative findings drawn from part 1, 2 and 3.

6.1 Implementation of the Team-Based Learning Approach

After the Team-Based Learning activities were evaluated and improvised according to the suggestions of the experts, it was implemented on a group of students that involved two business instructors who were the unit convenor and tutor of the unit studied in this research at one of the private international higher education in Sarawak.

6.1.1 Instructional Delivery Element of KEMP's Model

Subsequently, the instruction is developed and is ready to be conducted in the classroom using Team-Based Learning instructional strategies in order to achieve the instructional objectives and to solve the instructional problems identified earlier. Team-Based Learning instructional strategies consist of Pre-Class Preparation, Individual Readiness Assurance Process Tests, Team Readiness Assurance Process Tests, and Case Study Team Application Exercises. Constructivism Theory was practised as the basis of the instructional delivery. The process of the Team-Based Learning implementation is shown in Table 6.1.

Table 6.1 Implementation of the Team-Based Learning Approach

Implementation phase	Duration
Pre-Class Preparation	Before Class
Individual Tests (3 times per semester)	30 minutes
Team Tests (3 times per semester)	15 minutes
Team Application Exercises (3 times per semester)	90 minutes

6.2 Evaluation Phase of Team-Based Learning Approach

In the initial phase of the data collection process, data regarding the respondents' carry marks for the unit and how often do them study in a group, the respondents' perception towards Team-Based Learning, and their perception towards Teamwork in Team-Based Learning were collected using an Evaluation on Team-Based Learning Questionnaire. 30 students were volunteered to participate in the study. The respondents were required to fill in the same set of questionnaires before and after the Team-Based Learning activities. The scores obtained from the questionnaire were known as the pre-implementation survey and post-implementation survey scores. The gathered data will be analysed using the Statistical Package for the Social Sciences (SPSS) Version 23.0. This phase aimed to answer Research Question 4 and 5.

6.2.1 Evaluation Instruments Element of KEMP's Model

The final element of KEMP's Model is the evaluation instrument. Three multiple choices test that consists of 12 questions each and 3 case study questions were developed to assess the relationship of Team-Based Learning and the learning outcomes of students with different academic performance. The tests could be able to measure the degree to

which the students have learned in the Team-Based Learning sessions. A Team-Based Learning Evaluation Questionnaire was distributed to the participants to investigate their perception towards this learning approach. Interviews were also being conducted with both student and instructor respondents to justify the business students' instructional needs and possible strategies to improve Team-Based Learning activities.

6.2.2 Data Screening

All quantitative data gathered from the pre-implementation and post-implementation surveys were examined to check if there are any missing values. No missing values were identified in this study, and one of the samples of filled pre-implementation and post-implementation surveys was as attached in Appendix B. Data screening is necessary for making sure that the data have been entered correctly and that the distributions of variables that are to be used in the analysis are reasonable.

6.2.3 Reliability Analysis

The reliability analysis was conducted for Section B and C of the questionnaire based on a pilot study of 30 students who were enrolled for a business unit in a private international higher education institution in Semester 2, 2017. They were not involved in the actual study. Besides, the reliability analysis was also conducted for Section B and C of the questionnaire based on the pre-implementation and post-implementation surveys scores of the actual study that involved 30 students who enrolled for the business unit in Semester 1, 2018. Table 6.2 presents the results of the reliability analysis.

Table 6.2 Reliability Analyses Result of the Questionnaire (n= 30)

	Cronbach's Alpha Coefficient,		
	Pilot Study	Actual Study	
		Pre-Implementation Survey	Post-Implementation Survey
Overall (Section B & C)	0.920	0.745	0.897
Section B Perceptions of TBL	0.924	0.810	0.810
Section C Perceptions of Teamwork in TBL	0.901	0.853	0.940

Based on Table 6.2, the Cronbach's Alpha Coefficients of the pilot study for the two sections ranged from 0.901 to 0.924. The Cronbach's Alpha Coefficients of the actual study for the two sections ranged from 0.810 to 0.853 for the pre-implementation survey and 0.810 to 0.940 for the post-implementation survey. The Cronbach's Alpha Coefficients were more than 0.8 which were at an excellent level of internal consistency. Likewise, the overall questionnaire Cronbach's Alpha Coefficients was 0.745 for the pre-implementation survey and 0.897 for the post-implementation survey, which was considered as at an acceptable and good reliability level.

6.2.4 The Respondents' Information

The respondents' information that stated in Section A of the questionnaire was the respondents' carry marks for this unit and how often they study in groups as shown in Table 6.3 and Table 6.4. The respondents' carry marks information were only collected in the post-implementation survey.

Table 6.3 Carry Marks of the Student Respondents (n= 30)

Grades	No. of Students, N	Percentage, %
HD (80-100)	5	16.7
D (70-79)	6	20.0
C (60-69)	10	33.3
P (50-59)	8	26.7
N (0-49)	1	3.3
Overall	30	100.0

Based on the table above, a majority of the students' carry marks for HRM20016 Dynamics of Diversity in Organisations unit fall within the range 60 to 69, which brings them a grade of Credit. The marks followed by 50-59 (Pass), 70-79 (Distinction), 80-100 (High Distinction), and only one student falls under the group of 0-49, which brings him a Fail in this unit. These scores indicated that most of the students were doing average in their Individual Tests, Team Tests, and Team Application Exercises. However, 36.7% of the students got a High Distinction or Distinction for their carry marks which means they did well in the Team-Based Learning assessments.

Table 6.4 Frequency of the Student Respondents Study in Groups (n= 30)

Frequency	No. of Students, N (%)	
	Pre-Implementation Survey	Post-Implementation Survey
Always	1 (3.3)	1 (3.3)
Frequently	3 (10.0)	4 (13.3)
Occasionally	10 (33.3)	17 (56.7)
Rarely	14 (46.7)	5 (16.7)
Never	2 (6.7)	3 (10.0)
Overall	30 (100.0)	30 (100.0)

The post-implementation survey findings indicated that the highest number of students study in groups occasionally. The number of students has increased from 10 students (33.3%) to 17 students (56.7%) after the implementation of Team-Based Learning. On the other hand, the pre-implementation survey findings revealed that most significant number of students rarely study in groups in which the students' number reduced from 14 students (46.7%) to 5 students (16.7%) after the Team-Based Learning activities. Additionally, the number of students who study in group frequently have also risen from 3 students (10.0%) to 4 students (13.3%). However, the number of students who never study in groups have increased as well from 2 students (6,7%) to 3 students (10.0%) after the new intervention. Eventually, the student's number who always study in groups remains the same with one student (3.3%).

The demographic factors that were studied from the university's Allocate Plus Students' Information System were shown in Table 6.5 below. The demographic factors that were examined in this study including gender, the programme of study, and ethnicities.

Table 6.5 Demographic of the Student Respondents (n= 30)

	Demographic variables	No. of Students, N	Percentage, %
Gender	Male	12	40.0
	Female	18	60.0
Programme of Study	Accounting	7	23.3
	Finance	0	0.0
	Management	10	33.3
	Marketing	4	13.3
	International Business	4	13.3
	Human Resource Management	5	16.8
Ethnicities	German	2	6.8
	Danish	1	3.3
	Chinese	25	83.3
	Malay	1	3.3
	Indian	0	0.0
	Iban	1	3.3

A total of 30 respondents took part in this study. Female respondents made up 60% of the respondents compared to 40% male respondents. The respondents were Year 2 business students who generally local Chinese (83.3%). There were also 2 German (6.8%) and 1 Danish (3.3%) exchange students, and 1 local Malay (3.3%) and local Iban (3.3%) students respectively. Majority of them were Business Management students (33.3%), followed by Accounting students (23.3%), Human Resource Management students (16.8%), and 13.3% of Marketing and International Business students respectively.

6.3 The Students' Perception towards Team-Based Learning and Teamwork in Team-Based Learning

A Paired Sample t-test was carried out to examine whether there is a significant difference between the pre-implementation and post-implementation surveys scores to answer Research Question 4 (RQ4). This research question aimed to identify the university business students' perception on Team-Based Learning approach. An Evaluation of Team-Based Learning Questionnaire was used as the research instrument to answer this research question.

This research question investigates the students' perception before and after the implementation of the Team-Based Learning session. The tested hypothesis was as follow: -

$H_0$1: There is no significant difference in the students' perception towards Team-Based Learning and Teamwork in Team-Based Learning before and after the implementation of Team-Based Learning in a private international higher education institution.

$H_0$1(a): There is no significant difference in the students' perception towards Team-Based Learning before and after the implementation of Team-Based Learning in a private international higher education institution.

$H_0$1(b): There is no significant difference in the students' perception towards Teamwork in Team-Based Learning before and after the implementation of Team-Based Learning in a private international higher education institution.

6.3.1 Assumptions Testing

Three assumptions must be met before analysis can be undertaken. These three assumptions ought to be evaluated because the accuracy of test interpretation depends on whether assumptions have been violated. The standard assumptions to be tested for the t-test were the scale of measurement, random sampling, and normality of data. The first assumption was met in which the data collected followed a continuous or ordinal scale. The second assumption required the scores to be collected from a representative population of interest. The first and second assumptions are a matter of research design and not statistical analysis. Assumption 3 was tested and outlined as below.

6.3.2 Normality Test

The assumption of normality is a prerequisite for statistical analysis. In this study, the Kolmogorov-Smirnov Test and Skewness Values were used to test the normality of the data. Kolmogorov-Smirnov Test of Normality showed that the collected data for the pre-implementation and post-implementation surveys scores were normally distributed as shown in Table 6.6. If the significance level is higher than 0.05, then normality is assumed. The *p*-value for the pre-implementation survey (0.065) is slightly higher than 0.05, and the assumption that the pre-implementation survey was normally distributed should not be rejected at 5% level. Therefore, the pre-implementation survey data were normally distributed. Correspondingly, the *p*-value for post-implementation survey (0.161) is also greater than 0.05. Thus, the post-implementation survey data was also normally distributed.

Table 6.6 Kolmogorov-Smirnov Test of Normality for Pre and Post- Implementation Survey (n= 30)

Survey	Kolmogorov-Smirnov Statistic	df	*p*-value
Pre-Implementation Survey	0.155	30	0.065
Post-Implementation Survey	0.136	30	0.161

In addition, the Skewness Values were also determined to test the normality of the pre-implementation and post-implementation surveys scores. Skewness values fall in the range of -2 and +2 show the normality of data. Skewness Values for both the pre-implementation and post-implementation survey scores were within the acceptable range of -2 and +2. The negative values for skewness of the pre-implementation survey scores (-0.922) and the post-implementation survey scores (-1.403) indicate a negative skew. Therefore, it was proven that both pre-implementation and post-implementation surveys scores were normally distributed as presented in Table 6.7.

Table 6.7 Skewness Values for Pre-Implementation and Post-Implementation Surveys Scores (n= 30)

Scores	Skewness Value	Std. Error
Pre-Implementation Survey	-0.922	0.427
Post-Implementation Survey	-1.403	0.427

6.3.3 Descriptive Statistics of Pre-Implementation and Post-Implementation Surveys' Perception towards Team-Based Learning

Table 6.8 and Table 6.9 below shows the means, standard deviations, frequencies, and percentages of the students' perception towards Team-Based Learning and Teamwork in Team-Based Learning before the implementation of the Team-Based Learning approach. On the other hand, Table 6.10 and Table 6.11 shows the means, standard deviations, frequencies, and percentages of the students' perception towards Team-Based Learning and Teamwork in Team-Based Learning after the implementation of the Team-Based Learning approach as studied in this research. There were 20 questions in the Section B and C of the questionnaire. 30 students returned the pre-implementation and post-implementation surveys.

Table 6.8 Pre-Implementation Survey Responses of Students' Perception towards Team-Based Learning

Questions	Responses (n= 30)					Mean	Std.dev
	1	2	3	4	5		
TBL helped me to increase my understanding of the course. learning materials.	0 (0.0%)	1 (3.3%)	9 (30.0%)	16 (53.4%)	4 (13.3%)	3.77	0.728
I have read the required readings before I attend the lecture.	1 (3.3%)	7 (23.3%)	14 (46.8%)	7 (23.3%)	1 (3.3%)	3.00	0.871
I learned useful additional information during the TBL sessions.	0 (0.0%)	1 (3.3%)	6 (20.0%)	20 (66.7%)	3 (10.0%)	3.83	0.648
TBL helped me prepare for course examinations and assignments.	1 (3.3%)	1 (3.3%)	6 (20.0%)	11 (36.7%)	11 (36.7%)	4.00	1.017
I paid full attention most of the time during the TBL sessions.	0 (0.0%)	0 (0.0%)	6 (20.0%)	14 (46.7%)	10 (33.3%)	4.13	0.730
The TBL method was helpful in developing my information synthesizing skills.	0 (0.0%)	0 (0.0%)	12 (40.0%)	15 (50.0%)	3 (10.0%)	3.70	0.651
Individual Readiness Assurance Tests (I-RAT) were useful learning activities.	0 (0.0%)	3 (10.0%)	9 (30.0%)	16 (53.4%)	2 (6.6%)	3.57	0.774
I generally well prepared for the I-RAT.	1 (3.3%)	2 (6.6%)	8 (26.7%)	11 (36.7%)	8 (26.7%)	3.77	1.040
The Team Readiness Assurance Tests (T-RAT) discussions allowed me to correct my mistakes and improve understanding of the course concepts.	0 (0.0%)	0 (0.0%)	3 (10.0%)	11 (36.7%)	16 (53.3%)	4.43	0.679
I prefer a TBL method over a traditional lecture method.	1 (3.3%)	4 (13.3%)	4 (13.3%)	11 (36.7%)	10 (33.4%)	3.83	1.147
Average						3.80	0.457

Note. 1= Strongly disagree, 2= Disagree, 3=Neutral, 4= Agree, 5= Strongly Agree, Std. dev= Standard Deviation.

Table 6.9 Pre-Implementation Survey Responses of Students' Perception towards Teamwork in Team-Based Learning

Questions	Responses (n= 30)						
	1	2	3	4	5	Mean	Std.dev
Team discussions in the TBL were useful learning activities.	0 (0.0%)	0 (0.0%)	4 (13.3%)	18 (60.0%)	8 (26.7%)	4.13	0.629
Solving problems in a team is an effective way to learn.	0 (0.0%)	0 (0.0%)	2 (6.6%)	23 (76.7%)	5 (16.7%)	4.10	0.481
I learn better from small group discussion than lecture presentation.	0 (0.0%)	2 (6.6%)	9 (30.0%)	9 (30.0%)	10 (33.4%)	3.90	0.960
I have a positive attitude about working with my team members.	0 (0.0%)	0 (0.0%)	9 (30.0%)	15 (50.0%)	6 (20.0%)	3.90	0.712
The ability to collaborate with my team members is necessary if I am to be successful in my learning.	0 (0.0%)	0 (0.0%)	5 (16.7%)	18 (60.0%)	7 (23.3%)	4.07	0.640
Solving problems in a group is an effective way to practice what I have learned.	0 (0.0%)	0 (0.0%)	4 (13.3%)	18 (60.0%)	8 (26.7%)	4.13	0.629
My team members worked well together.	0 (0.0%)	0 (0.0%)	12 (40.0%)	16 (53.4%)	2 (6.6%)	3.67	0.606
I contributed meaningfully to the TBL discussions.	0 (0.0%)	0 (0.0%)	6 (20.0%)	18 (60.0%)	6 (20.0%)	4.00	0.643
Most students were attentive and committed during the TBL sessions.	0 (0.0%)	0 (0.0%)	11 (36.7%)	14 (46.6%)	5 (16.7%)	3.80	0.714
There was mutual respect for other team members' viewpoints during the team discussion process.	0 (0.0%)	0 (0.0%)	3 (10.0%)	9 (30.0%)	18 (60.0%)	4.50	0.682
Average						4.02	0.416
Overall Average						3.91	0.170

Note. 1= Strongly disagree, 2= Disagree, 3=Neutral, 4= Agree, 5= Strongly Agree, Std. dev= Standard Deviation.

The respondents were required to fill the Evaluation of Team-Based Learning Questionnaire that consisted of 20 questions as Pre-Implementation Survey one week before the implementation of Team-Based Learning activities. As Table 6.8 and 6.9 reveal, all the mean scores for the pre-implementation survey ranged from 3.00 to 4.50, on a five-point Likert-type rating scale. The mean scores showed that most of the respondents chosen 'neutral' or 'agree' as their responses on the questionnaire. These results indicated that even though the students' respondents have not gone through the Team-Based Learning activities, and some of them even have a vague idea on this learning approach, yet they still exhibited positive perception towards this new learning experience (Overall Mean= 3.91, Std. dev= 0.170).

Generally, the students' respondents' had good first impression towards Team-Based Learning. They believed that the Team Readiness Assurance Tests (T-RAT) discussions could allow them to correct their mistakes and improve their understanding of the course concepts (Mean= 4.43, Std. dev= 0.679) but unsure whether the Individual Readiness Assurance Test (I-RAT) were useful learning activities (Mean= 3.57, Std. dev= 0.774). The respondents assumed that this learning approach required great teamwork among the team members. They strongly believed that mutual respect for other team members' viewpoint was essential during the team discussion process (Mean= 4.50, Std. dev= 0.682). Besides, they also felt that team discussion in the Team-Based Learning would be useful learning activities (Mean= 4.13, Std. dev= 0.629) and solving problems in teams is an effective way to practice what they have learned (Mean= 4.13, Std. dev= 0.629). However, the respondents were not confident that they could read the required readings before attending the lecture (Mean= 3.00, Std. dev= 0.871).

Table 6.10 Post-Implementation Survey Responses of Students' Perception towards Team-Based Learning

Questions	Responses (n= 30)						
	1	2	3	4	5	Mean	Std.dev
TBL helped me to increase my understanding of the course. learning materials.	0 (0.0%)	1 (3.3%)	4 (13.3%)	18 (60.0%)	7 (23.4%)	4.03	0.718
I have read the required readings. before I attend the lecture.	1 (3.3%)	5 (16.7%)	13 (43.3%)	7 (23.4%)	4 (13.3%)	3.27	1.015
I learned useful additional information during the TBL sessions.	0 (0.0%)	3 (10.0%)	6 (20.0%)	14 (46.6%)	7 (23.4%)	3.83	0.913
TBL helped me prepare for course examinations and assignments.	1 (3.3%)	2 (6.6%)	5 (16.7%)	14 (46.7%)	8 (26.7%)	3.87	1.008
I paid full attention most of the time during the TBL sessions.	1 (3.3%)	0 (0.0%)	6 (20.0%)	13 (43.3%)	10 (33.4%)	4.03	0.928
The TBL method was helpful in developing my information synthesizing skills.	1 (3.3%)	1 (3.3%)	6 (20.0%)	14 (46.7%)	8 (26.7%)	3.90	0.960
Individual Readiness Assurance Tests (I-RAT) were useful learning activities.	0 (0.0%)	0 (0.0%)	6 (20.0%)	11 (36.7%)	13 (43.3%)	4.23	0.774
I generally well prepared for the I-RAT.	0 (0.0%)	0 (0.0%)	9 (30.0%)	16 (53.3%)	5 (16.7%)	3.87	0.681
The Team Readiness Assurance Tests (T-RAT) discussions allowed me to correct my mistakes and improve understanding of the course concepts.	1 (3.3%)	0 (0.0%)	2 (6.6%)	8 (26.7%)	19 (63.4%)	4.47	0.900
I prefer a TBL method over a traditional lecture method.	1 (3.3%)	1 (3.3%)	6 (20.0%)	8 (26.7%)	14 (46.7%)	4.10	1.062
Average						3.96	0.649

Note. 1= Strongly disagree, 2= Disagree, 3=Neutral, 4= Agree, 5= Strongly Agree, Std. dev= Standard Deviation.

Table 6.11 Post-Implementation Survey Responses of Students' Perception towards Teamwork in Team-Based Learning

Questions	Responses (n= 30)						
	1	2	3	4	5	Mean	Std.dev
Team discussions in the TBL learning were useful learning activities.	1 (3.3%)	0 (0.0%)	4 (13.3%)	17 (56.7%)	8 (26.7%)	4.03	0.850
Solving problems in a team is an effective way to learn.	0 (0.0%)	0 (0.0%)	2 (6.6%)	14 (46.7%)	14 (46.7%)	4.40	0.621
I learn better from small group discussion than lecture presentation.	0 (0.0%)	2 (6.6%)	4 (13.3%)	11 (36.7%)	13 (43.4%)	4.17	0.913
I have a positive attitude about working with my team members.	1 (3.3%)	0 (0.0%)	3 (10.0%)	11 (36.7%)	15 (50.0%)	4.30	0.915
The ability to collaborate with my team members is necessary if I am to be successful in my learning.	1 (3.3%)	0 (0.0%)	2 (6.6%)	16 (53.4%)	11 (36.7%)	4.20	0.847
Solving problems in a group is an effective way to practice what I have learned.	0 (0.0%)	1 (3.3%)	1 (3.3%)	19 (63.4%)	9 (30.0%)	4.20	0.664
My team members worked well together.	1 (3.3%)	2 (6.6%)	4 (13.4%)	8 (26.7%)	15 (50.0%)	4.13	1.106
I contributed meaningfully to the TBL discussions.	0 (0.0%)	1 (3.3%)	1 (3.3%)	18 (60.0%)	10 (33.4%)	4.23	0.679
Most students were attentive and committed during the TBL sessions.	0 (0.0%)	3 (10.0%)	3 (10.0%)	9 (30.0%)	15 (50.0%)	4.20	0.997
There was mutual respect for other team members' viewpoints during the team discussion process.	0 (0.0%)	0 (0.0%)	4 (13.3%)	8 (26.7%)	18 (60.0%)	4.47	0.730
Average						4.23	0.636
Overall Average						4.09	0.144

Note. 1= Strongly disagree, 2= Disagree, 3=Neutral, 4= Agree, 5= Strongly Agree, Std. dev= Standard Deviation.

The respondents were required to fill the same set of Evaluation of Team-Based Learning Questionnaire again immediately after the implementation of the Team-Based Learning activities in the final week of Semester 1, 2018. As Table 6.10 and 6.11 indicate, all the mean scores for the pre-implementation survey ranged from 3.27 to 4.47, on a same five-point Likert-type rating scale. These scores revealed that the students' respondents positively perceived the Team-Based Learning approach (Overall Mean= 4.09, Std. dev= 0.144). The overall average scores of the post-implementation survey have been increased slightly when compared to the pre-implementation survey from 3.91 to 4.09 after the implementation of the new learning approach. This new approach has generated a great learning experience for the students as responded in the qualitative findings of this chapter.

In general, Team-Based Learning approach was well perceived by the students' respondents. They still believed that the Team Readiness Assurance Tests (T-RAT) discussions could allow them to correct their misconceptions and enhance their understanding of the course concepts (Mean= 4.47, Std. dev= 0.900). Also, the respondents have changed their perception towards the effectiveness of Individual Readiness Assurance Test (I-RAT) as a useful learning activity (Mean= 4.23, Std. dev= 0.774). The respondents perceived great teamwork as crucial in Team-Based Learning. Similarly, they still strongly believed that mutual respect for other team members' viewpoint was essential during the team discussion process (Mean= 4.47, Std. dev= 0.730). Additionally, they also felt that solving problems in teams is an effective way to learn (Mean= 4.40, Std. dev= 0.621) and to practice what they have learned (Mean= 4.20, Std. dev= 0.664). They have a positive attitude about working with their team members. Surprisingly, the respondents were still not committed to prepare and read the required readings before attending the lecture (Mean= 3.27, Std. dev= 1.015).

6.4 Evaluation of the Students' Perception towards Team-Based Learning

Section B of the Evaluation of Team-Based Learning Questionnaire aimed to measure the respondents' perception towards Team-Based Learning approach. Table 6.12 below presents the comparison of the pre-implementation and post-implementation surveys scores. Paired t-test was used to assess the respondents' perception towards Team-Based Learning after the implementation of the new learning approach. Alpha level of 0.05 was used for all statistical tests. A t-test was used to test the differences in means between two groups which are the perception towards Team-Based Learning for both the pre-implementation and post-implementation surveys.

Table 6.12 Paired t-test Analysis Results for the Pre-Implementation and Post-Implementation Survey for Perception towards Team-Based Learning

	Paired Differences (n= 30)					
Survey	Mean	N	SD	*T*	*df*	Sig(2-tailed)
Pre-Implementation	3.80	30	0.457	-1.088	29	0.285
Post-Implementation	3.96	30	0.649			
Gain	0.16					
*p < 0.05						

Null hypothesis 1(a) foreseen that there is no significant difference between the pre- implementation survey and post- implementation survey scores concerning the students' perception towards Team-Based Learning after the implementation of Team-Based Learning approach. The t-test analysis indicates there was no significant difference in the in the scores gathered in term of the perception towards Team-Based Learning for pre-

implementation survey (Mean=3.80, Std. dev= 0.457) and post- implementation survey (Mean= 3.96, Std. dev= 0.649) conditions; t (29) = -1.088, and p= 0.285. Based on this outcome, it can be concluded that the hypothesis is not rejected in which there was no significant change in the respondents' perception towards Team-Based Learning after the implementation of the learning approach.

6.5 Evaluation of the Students' Perception towards Teamwork in Team-Based Learning

Section C of the Evaluation of Team-Based Learning Questionnaire intended to evaluate the respondents' perception towards Teamwork in Team-Based Learning. Table 6.13 below shows the comparison of the pre-implementation and post-implementation surveys scores to examine the respondents' perception towards Teamwork after the implementation of Team-Based Learning approach. A t-test was used to test the differences in means between two groups, which are the perception towards Teamwork in Team-Based Learning for both the pre-implementation and post-implementation surveys.

Table 6.13 Paired t-test Analysis Results for the Pre-Implementation and Post-Implementation Surveys for Perception towards Teamwork

	Paired Differences (n= 30)					
Survey	Mean	N	SD	*T*	*df*	Sig(2-tailed)
Pre-Implementation	4.02	30	0.416	-1.513	29	0.141
Post-Implementation	4.23	30	0.636			
Gain	0.21					

*p < 0.05

Null hypothesis 1(b) states that there is no significant difference between the pre-implementation and post-implementation surveys scores concerning the respondents' perception towards Teamwork in Team-Based Learning after the implementation of Team-Based Learning approach. The t-test analysis shows there was no significant difference in the scores gathered in term of the respondents' perception towards Teamwork in Team-Based Learning for pre- implementation survey (Mean=4.02, Std. dev= 0.416) and post- implementation survey (Mean= 4.23, Std. dev= 0.636) conditions; t (29) = -1.513, and p= 0.141. Based on this outcome, it can be concluded that the hypothesis is not rejected in which there was no significant gain in the respondents' perception towards Teamwork after the implementation of Team-Based Learning.

The overall pre-implementation and post-implementation surveys scores for both Section B and C also indicate that there is no significant difference in the respondents' perception towards Team-Based Learning and Teamwork in Team-Based Learning before and after the implementation of the Team-Based Learning approach. The Paired t-test analysis shows there was no significant difference in the overall scores obtained for pre- implementation survey (Mean= 3.91, Std. dev= 0.389) and post- implementation survey (Mean= 4.09, Std. dev= 0.591) conditions; t (29) = -1.381, and p= 0.178. Hereafter, the null hypothesis is not rejected. There were no significant differences in the respondents' perception towards Team-Based Learning and Teamwork in Team-Based Learning after the implementation of Team-Based Learning, even though there was a marginally increase in the overall mean scores as discussed in the previous section.

It can be concluded that Team-Based Learning was well-perceived by the students enrolled in business courses in this private international higher education institution. The overall mean scores for both pre-implementation and post-implementation surveys are

considered high. These findings indicated that the students positively perceived Team-Based Learning and Teamwork in Team-Based Learning even before the implementation of Team-Based Learning approach. As a result, there is no significant changes in the students' perception after the implementation of Team-Based Learning approach in such a short period of timeframe even though there was a marginally increase in the overall mean scores. The t-test analysis results for the overall pre-implementation and post-implementation surveys were presented in Table 6.14.

Table 6.14 Paired t-test Analysis Results for the Overall Pre-Implementation and Post-Implementation Surveys Scores for Perception

	Paired Differences (n= 30)					
Survey	Mean	N	SD	*T*	*df*	Sig(2-tailed)
Pre-Implementation	3.91	30	0.389	-1.381	29	0.178
Post-Implementation	4.09	30	0.591			
Gain	0.18					

*p < 0.05

6.6 Findings of Online Surveys using Google Forms Application

Successively, the students' suggestions of the methods and strategies to improve Team-Based Learning were recorded on online worksheets designed and developed using Google Forms Application. Google Forms application is a free platform used to create online surveys. The survey data was also drawn to substantiate the students' perception towards Team-Based Learning as discussed in the first part of this chapter. The online worksheet on Google Forms Application was demonstrated in Figure 6.1 whereas examples of the students' responses were shown in Figure 6.2 below: -

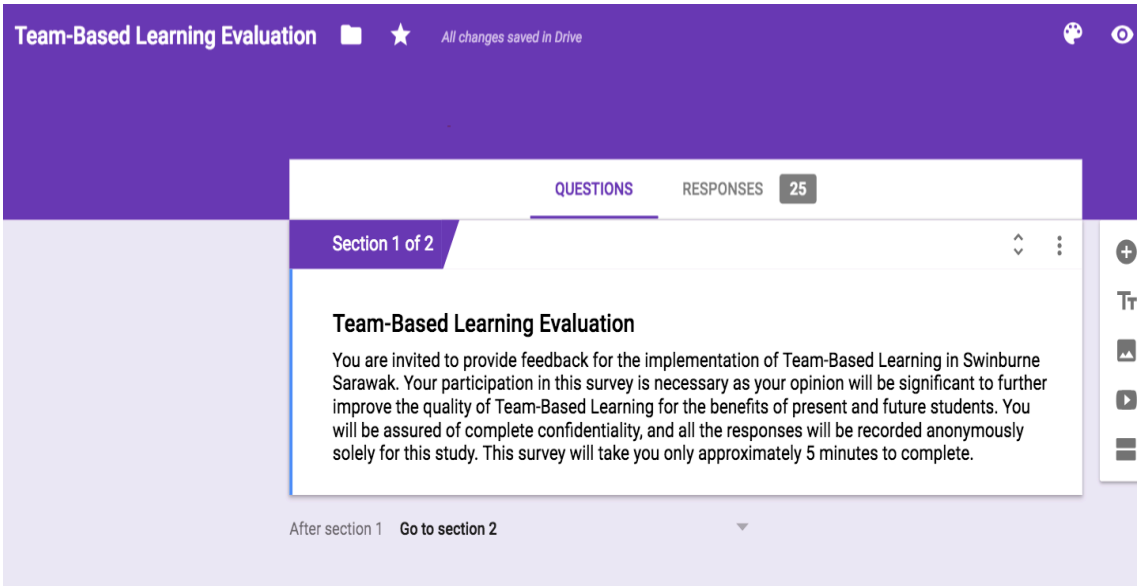


Figure 6.1 Screen capture of the Online Worksheet on Google Forms Application

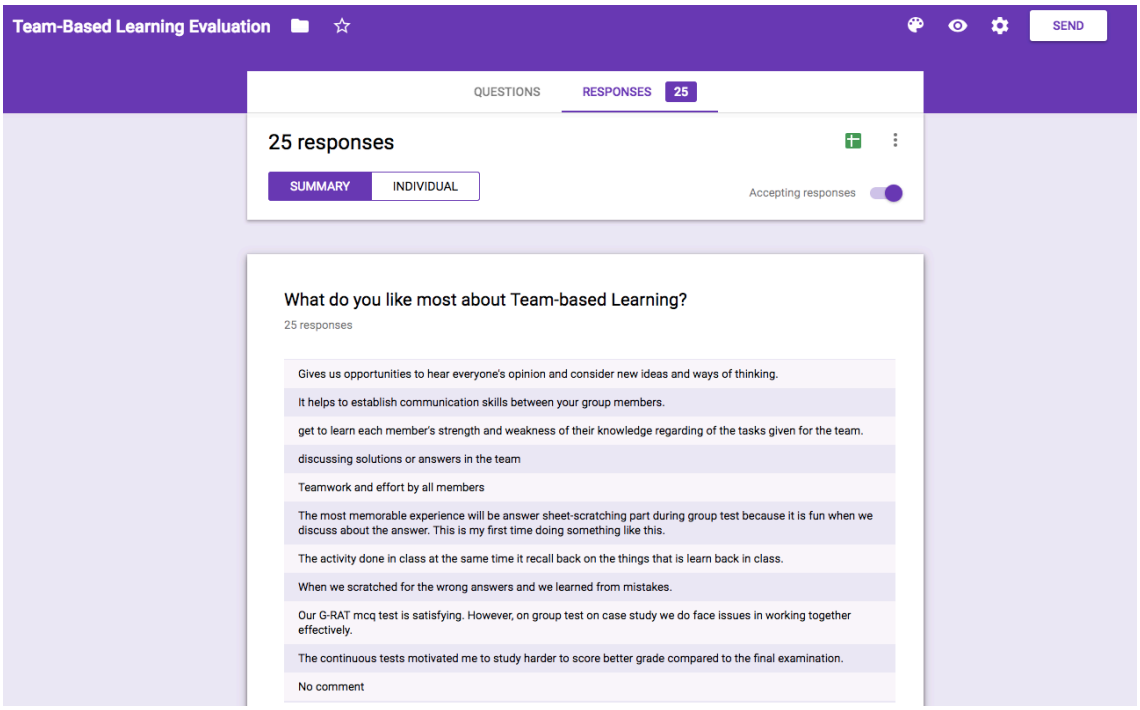


Figure 6.2 Screen capture of the Students' Responses towards TBL

In the online survey, three open-ended questions were provided as measures to identify the students' perceptions towards Team-Based Learning and Teamwork in Team-Based Learning suggestions and comments for improving the learning approach. The questions were: (1) What do you like most about Team-Based Learning? (2) What are the limitations that the Team-Based Learning activities presented during the practice? and (3) What are the strategies or methods suggested by you to improve the limitations that you mentioned previously?

The online survey was opened to all the 30 students who were volunteered to participate in the study after the implementation of the learning approach. They were the same respondents as identified in the first part of this chapter. 25 (83.3%) students were involved in the online survey on Google Forms Application. Their responses were recorded confidentially and anonymously solely for this study. The online responses were analysed and coded to search for themes and similarities manually without using any qualitative data analysis software. Data collected from the survey indicated the student respondents' perceptions and experiences to determine the methods and strategies to improve Team-Based Learning for business education that was unveiled during the coding process.

6.6.1 Findings of the Students' Perception towards Team-Based Learning

Majority of the student respondents expressed positive thoughts about Team-Based Learning. These findings supported the previous quantitative data to answer Research Question 3 (RO3) regarding the students' perception towards Team-Based Learning and Teamwork in Team-Based Learning. Three students commended vividly that the continuous tests increased their self-efficacy to pass this unit as indicated in their test results and they prefer Team-Based Learning than the traditional final examination

method. Interestingly, these students emphasised scoring a good grade for this unit of study. These findings substantiate the quantitative data gathered using the Evaluation of Team-Based Learning Questionnaire in which the students strongly perceived that Team-Based Learning could be able to correct their mistakes and improve their understanding of the course concepts (Mean= 4.47, Std. dev= 0.900). They also believed that Team-Based Learning helps them to prepare for course examination and assignments (Mean= 3.87, Std. dev= 1.008). The quotes are shown below as extracted from these students.

According to Student 11, "The continuous tests motivated me to study harder to score a better grade compared to the final examination".

According to Student 13, "I am always curious to know the answers and my results after the tests. Now I can track my mistakes and my grades right after the team tests. I am happy with this approach."

According to Student 16, "I felt happy about the experience as it can help us to get higher grades for the subject".

Based on the researcher and the instructors' observation, these students were most probably academically excellence students who were concerned about their academic performance and always curious to know their mistakes and results after tests. They were happy to know the correct answers for the individual tests immediately after the team tests. They could instantly recognise their mistakes and try to read more or consult their teammates on the spot to enhance their understanding of that particular topic. They could

know their cumulative grades for both individual and team tests right after the tests. Some students, especially academically excellent and good students who are concerned about their grades identified this element as crucial and they would like to learn as much new knowledge as possible in class. They are the group of students who incline to learn through mistakes.

The first question provoked participants to share their positive perception concerning Team-Based Learning approach. Two of the students insisted that Team-Based Learning help to recall back the knowledge that they have learned and enhanced their understanding of the difficult topics. These findings supported the previous quantitative data in which the students perceived that Team-Based Learning helps in increasing their understanding of the course learning materials (Mean= 4.03, Std. dev= 0.718). Their responses asserted,

According to Student 8, "The activity is done in class at the same time it recalls back on the things that are learned back in class".

According to Student 15, "This approach enables me to know my misunderstanding on specific topics and correct myself topic by topics. This method improves my understanding of the difficult topics".

Few of the respondents felt that the Team-Based Learning tests were aligned with their learning styles and should be carried out as the current teaching and learning practice in the future. They agreed to replace final examination with the continuous Team-Based learning assessment. These findings confirm the quantitative data gathered in which the

students claimed that they prefer Team-Based Learning assessment method over traditional final examination method (Mean= 4.10, Std. dev= 1.062). Among the comments received were as follow: -

According to Student 5, "Continue to be no final exam, please. It gives students pressure to" pass" rather than to learn".

According to Student 18, "I hope more team-based activities will be implemented as this will help nurture students' social skills, and it will help more for students in studying in a group than alone. Team-based activities are definitely much better than the final exam".

According to Student 23, "To have TBL teaching in every single unit with no final exam".

However, there was one minor feedback indicated that final examination should be included as part of the assessment tasks as quoted below: -

According to Student 22, "Need to have a final exam (maybe 30%)".

This feedback be provided was most probably because this student is the exam-oriented type who are too used to the traditional examination system and it takes time for these students to accommodate to this new learning experience as indicated by one of the students. The feedback described,

According to Student 8, "Happy to it but it took time to accommodate the experience for further use in the future".

6.6.2 Findings of the Students' Perception towards Teamwork in Team-Based Learning

These findings reflected the students reported feedback on the procedures and activities implemented in the team tests that were established by the unit convenor and the researcher for this study. The keywords in this theme were clear except for "cohesiveness" and "diverse". Cohesiveness was used to confer the students' respondents' awareness about the importance of teamwork in Team-Based Learning to unite and work together effectively. The term diverse in the theme meant the unit convenor and tutor should divide the students into teams by showing a great deal of variety of students in the teams. The team members differ in term of gender, age, ethnicity, nationality, culture, major, and learning styles.

One of the impacts of Team-Based Learning as described by the respondents were to enhance the cohesiveness of the team members. This finding supported by Espey (2012) and Michaelsen, Sweet and Parmalee (2009) who reported that Team-Based Learning contributed to team cohesiveness and team success. Team-Based Learning activities played a direct role in building up good relationship among the team members, mainly via the group discussion by working closely together with the team members. They tend to learn through their peers' explanation regarding their choices of selection for the individual test. Consequently, their scores for team tests gradually improved as well. These findings confirm the quantitative data collected using the Evaluation of Team-Based Learning Questionnaire in which the students strongly perceived that there

was mutual respect for other team members' viewpoints during team discussion (Mean= 4.47, Std. dev= 0.730) and they have positive attitude about working with their team members (Mean= 4.30, Std. dev= 0.915).

According to Student 17, "The most memorable experience that I get from the TBL is able to have a good group collaboration and relationship with each of my group member…. each one of us respects each other and helping each other".

According to Student 19, "There was one time when all of us had a very different perspective towards this particular question, and it took us a while just to figure out the answers to that question, after a long discussion (more like a debate). And somehow it made us closer".

According to Student 25, "Our team cohesiveness improved every week. As a result, our team tests score gradually improved also".

The respondents suggested that diverse team members are one of the competitive advantages of the teams to contribute new ideas and more accurate answers for the team tests. This was proven by the instructors and researcher based on their observations throughout the semester. These findings supported the quantitative data in which the students believed that Team-Based Learning develops their information synthesizing skills (Mean= 3.90, Std. dev= 0.960). Below are the quotes from the students.

According to Student 1, "It gives us opportunities to hear everyone's opinion and consider new ideas and ways of thinking".

According to Student 17, "I am very happy and very satisfied with my group member. This is because each one of us contributes ideas and helping each other".

The respondents also suggested that diverse team members are essential to establish communication skills among the team members as asserted below: -

According to Student 2, "Diverse team members help to establish communication skills between your group members".

According to Student 24, "The best thing is the diverse group members I met and our work effort is great".

Positively, the students commented that the team application exercises enabled them to learn from the strengths and weaknesses of their team members in the process of solving the tasks given. Additionally, the continuous team application practices also enabled the students to learn diversity-related topics that might be useful in their future HR career. Below are the comments from these two students,

According to Student 3, "I get to learn each member's strength and weakness of their knowledge regarding of the tasks given for the team".

According to Student 23, "Continuously learn about diversity-related topics in teams that will greatly enhance my understanding and contribute to my career as an HR officer in future".

These findings validate the previous quantitative data in which the students perceived that solving problems in teams is an effective way to learn (Mean= 4.40, Std. dev= 0.612) and the ability to collaborate with their team members is necessary if they want to be successful in their learning (Mean= 4.20, Std. dev= 0.847).

6.7 Findings of the Methods and Strategies to Improve Team-Based Learning Activities

This part of the chapter is intended to discover the methods and strategies to improve the implementation of Team-based Learning activities in business education. The researcher will refine this study in future iterations based on the researcher's observation and the feedback and recommendations suggested by the student respondents. The refinement will be done in future postgraduates' study. The findings were tabulated in the section below. The attempt revealed in this process aims to answer the Research Question 3 (RQ3).

The findings obtained from the online survey on the Google Form Application for the students' respondents after the implementation of the Team-Based Learning approach aimed to examine the methods and strategies to improve Team-Based Learning for a business unit in a private higher education institution from the students' perspective. Results of the Research Question 3 concerning the methods and strategies to improve Team-Based Learning for business education in higher education based on the students'

perspective were analysed and presented in Table 6.15. There were four major themes derived from the analysis of the gathered data as discussed in the following section. The themes are “Pre-Class Preparation”, “Individual Readiness Assurance Process Tests”, Team Readiness Assurance Process Tests”, and “Case Study Team Application Exercises”. The students suggested that the Team-Based Learning activities should be improved based on the four phases of Team-Based learning approach. These themes were determined based on the framework suggested by Whitley et al. (2015), Michaelsen and Sweet (2011), and Huang and Lin (2017). The main themes and sub-themes of the analysis results are gathered in Table 6.15 as follow: -

Table 6.15 Major Themes and Keywords from the analysis of "Methods and Strategies to Improve Team-Based Learning in Higher Education" Based on Students' Perspective

Research Question	Main Themes	Sub-Themes
Which are the methods and strategies to improve Team-Based Learning activities for business education in a private international higher education institution based on the students' recommendations after the implementation of the Team-Based Learning approach?	Pre-Class Preparation	Create more pre-class e-tivities.
	Individual Readiness Assurance Process Tests	To bold or highlight the relevant key words in the questions
	Group Readiness Assurance Process Tests	Replace the IF-@ form with response apps or software.
		Develop team dynamics based on the four stages of team development processes.
		Instructor should act as an active facilitator to make sure all members contribute to the tests.
		Extra time to be given to teams with disagreement or conflicts.
	Case Study Team Application Exercises	Clear instruction and requirement should be given by the tutor, especially in the first application exercise.
		Conduct the RAP Tests before the team application exercises as revision.
		To create a stress-free environment for the students.
		To redesign the tasks and questions that require input from each member.

6.7.1 Pre-Class Preparation

One student suggested to create more pre-class self-preparation activities to prepare the students for the tests. This student suggestion quoted,

According to Student 8, "Suggest to initiate more pre-class activities such as e-tivities".

Thus, more recorded lecture videos will be developed for difficult topics. In addition, more e-tivities will also be created via Blackboard to enhance students' understanding after watching the pre-lecture videos. This strategy is crucial to overcome one of the Team-Based Learning issues identified from the quantitative data in which the respondents were not confident that they could be committed to prepare and read the required readings before attending the lecture (Mean= 3.27, Std. dev= 1.015).

6.7.2 Individual Readiness Assurance Process Tests

There was no major recommendation proposed by the students concerning the individual tests. Nevertheless, there was one student suggested that the relevant keywords of some of the long questions should be bolded or highlighted as some of the questions were too long, and it took time for the student to understand the questions. The responses were as follow,

According to Student 11, "It takes time for me to understand the long questions as I find it hard to understand long English sentences and sometimes 30 minutes were not enough

for the individual test. It would be good if the relevant key words of the questions could be highlighted or bolded so that we can understand the questions better".

This issue is perhaps because there were three German and Danish exchange students in this class for whom English is not their first language. Based on the researcher and instructors' observation, these students had to translate the learning materials to the German and Danish language most of the time in classes. The other students had taken few English proficiency courses before being enrolled at the university and are considered as doing fine with no major issue with their English.

6.7.3 Team Readiness Assurance Process Tests

Few students commented negatively towards the team tests activities. According to them, these all depend on who the team members are. Most of them agreed that their team members were the main factor that led to their dissatisfaction towards the team tests. The students were unsatisfied with their team members who did not contribute and refuse to cooperate with other team members. There was a lack of communication among the team members that sometimes led to disagreement and conflicts in the idea. The students' responses described,

According to Student 1, "Possible limitations may include team members were not actively involved in discussions and refused to cooperate with the other team members in various activities".

According to Student 2, "Not all students contributed in the group".

According to Student 3, "Lack of communications among team members, sometimes disagreement and conflicts in ideas come about".

According to Student 16, "Different people may have their own opinions about the reason they choose the answer. We will always need to spend more time to discuss if there were different answers".

This issue was still occurring even though the students were given the freedom to choose their team members. This issue is because some students were absent for the first few classes when the team was formed. As a result, these students were randomly allocated into different teams to form diverse groups with 5-6 students. The issues brought up by the students indicated that the team dynamics were not addressed sufficiently. In order to overcome this issue, the four stages of team development- Forming, Storming, Norming, and Performing should be emphasised. Moreover, the instructor and tutor should act as an active facilitator to walk around the class and make sure that all members contribute to the tests. They might also be evaluated based on their participation and involvement in the discussions. Extra time should also be given to the teams with any disagreement or different opinions.

Furthermore, the student respondents also commented on an interesting point highlighted in regard to replace the IF-@ Form with technology. This suggestion can be able to save resources and costs. The IF-@ Form has to be ordered and delivered from Australia every semester because these printed forms would be expired and cannot be used anymore after approximately one year. The international students in this class might recommend this suggestion due to their learning background in which their countries are

practising advanced technology as their tertiary education teaching and learning approach. Technology here referred to instructional technology that can be able to enhance the teaching and learning process of Team-Based Learning approach. Instructional technology is the current educational trend of our country. Previous literature also has reported the effectiveness of educational technology in enhancing the Team-Based Learning approach and the strategies to improve students' learning and understanding.

On top of this issue, two of the students also pointed out the weaknesses of the IF-@ Form in which the format and the quality of the form were not standardised. The responses claimed as follow: -

*According to Student 12, "*The team test can get better with technology. That motivates us to love to do it. Replace the if-@ form with response apps or software".

*According to Student 13, "*The stars or asterisk on the IF-@ Form is not standardized in which they are inconsistently printed on the left and right-hand sides of the answers. This is confusing sometimes".

*According to Student 18, "*Sometimes it was hard to scratch the answers on the IF-@ Form. According to our lecturer, some of the forms have expired".

Generally, there were both positive and negative comments about the scratching method used in the team tests. The students agreed that the scratching method had enabled them to learn from their mistakes. Moreover, the scratching method is also an interesting

approach because the students could challenge by filling in an appeal form if any of the teams were not happy with the correct answer from the test. If their appeal were correct as they could follow up their appeal the following week, all members of that group would get the marks. This appeal method was adopted from Michaelsen and Sweet (2011) and Michaelsen (2008). Farland et al. (2015) reported that this assessment method could be able to increase exam scores and improve the students' perceptions of the quality of their team interaction. The students' comments in regard to this method are as follow: -

*According to Student 7, "*The most memorable experience will be answered sheet-scratching part during group test because it is fun when we discuss about the answer. This is my first time doing something like this".

*According to Student 9, "*When we scratched for the wrong answers and we learned from mistakes".

*According to Student 14, "*It is interesting that we could challenge if we were not happy with the correct answers provided by the tests".

Surprisingly, one of the respondents proclaimed that the scratching method is just similar with scratching the lottery code in which they are trying to guess the actual answers. The Muslim students in the class most probably proposed this issue. The students' response is quoted below: -

According to Student 21, "The scratching game is just scratching the lottery code. We are trying to guess the answers to the questions".

However, the instructors and tutors have clarified this issue several times in the classes. This activity is not considered as gambling because all the students are required to put in effort in order to answer the questions correctly, and they deserve to be granted for the marks as long as they have put in their hard work to study and prepare for the tests. Besides, it also does not involve any money or for money's worth. Islam views gam-bling as an activity to obtain undeserved money or goods that will lead him or her to laziness and eliminates his or her strength to work.

6.7.4 Case Study Team Application Exercises

It was significant to note that there were two students quoted 'Teamwork' as a distraction for them to learn and perform better. Below are their quotes: -

According to Student 5, "The limitation of TBL is 'Conflicted'. Teamwork synchronisation is a rarity".

According to Student 10, "Our T-RAT MCQ test is satisfying. However, on group test on the case study, we do face issues in working together effectively. It is normal for situations like this to arise in a group. Nonetheless, there may sometimes be I feel frustrated. I wish to have more active members contributing to group discussions".

This assessment aimed to remind the students to be well-prepared before classes. However, it is undeniable that some students did not take this assessment seriously. Some of the students did not even do any preparation and reading before class as described by Student 15 below: -

"We usually split our tasks among the team members. However, two of our members always do lot read the case before class. Eventually, I as the team leader have to do their work".

Even though most of the students prefer group discussion than individual assessment, yet, there were also students who could not value teamwork. Some of the students prefer to solve the problem alone rather than in teams. This issue is mainly due to social loafing phenomenon in which a team member is seemed as employing less effort to complete the task given when he or she is working in a team than when working alone. The social loafing phenomenon was shown in the following case as described by one of the respondents: -

According to Student 20, "However, we have to accept one member that the person does not really put the full commitment in the group, and yet the person is smart as well, but the person pretended to be dumb".

In this study, challenging cases and questions were proposed to the students in the team application exercises assessment. Higher order thinking skills were required to answer the questions. Hence, the students are expected to solve the questions in teams, and there might be constructive solutions from their peers that could be learned. The feedback from the students who prefer to work alone are indicated as follow: -

According to Student 6, "I prefer doing the assignments or assessment tasks individually in order to avoid any conflicts or misunderstanding".

According to Student 23, "I prefer to solve the case study questions alone, especially when it comes to theory and concept".

In order to reduce the Teamwork issue, there is a need to redesign the assessment questions and tasks that require input and contribution from each individual within a team as suggested by the students as follow: -

According to Student 1, "Have activities that encourage all team members to work together to solve puzzles or problems that require input from each individual within a team".

According to Student 2, "Come out with a suitable task that can get all members to contribute".

According to Student 3, "Each member should try to take turns to speak out their ideas and problems to the members early so that work can be done efficiently".

A thought-provoking point made by the students was the focus on relaxation to overcome stress while answering the questions. The responses are as captured below: -

*According to Student 15, "*I get stressed out when there were so many things to write on the answer papers".

*According to Student 19, "*Stress and panic due to time constraint. I get most of them wrong during one of the TBL".

A certain level of pressure is necessary to motivate the students to persevere through the waves of learning. This finding shows that the students have convinced level of self-awareness towards stress and pressure in their study. Nevertheless, they were all Year Two students who have been battered through many units in previous semesters. They were expected to be more resilient to challenges in university compared to first-year students. However, it is undeniable that some of them might be worried about the pressures to study. Hence, their lecturer and tutor should work out for a conducive and stress-free environment for the students, particularly for the team application exercises assessment.

Subsequently, one of the respondents commented that the cases given were too long in which one of them consisted of seven pages. Subsequently, another respondent

suggested that there is a need for the tutor or lecturer to briefly explain the cases and the questions to the students before the team application exercises. Additionally, the tutor is also required to provide clear instructions to the students before the exercises commence, particularly for the first application exercise since the students have no idea at all on what are they supposed to do. The responses asserted,

According to Student 24, "The cases given were too long. Some of the contents were hard to understand".

According to Student 14, "Clear instruction should be given by the tutor, especially in the first application exercise".

According to Student 15, "Tutor should clarify her requirements for the case study questions".

Eventually, a respondent also suggested that it would be more efficient if the individual and group tests were conducted before the team application exercises. This suggestion is crucial because the individual and group tests can be a revision session for the students to prepare for their team application exercises so that they would have a better understanding on the concepts and theories that would be covered in the tests. He describes,

According to Student 25, "It is better to have RAP tests before the application exercises. We can take the RAP as a revision to improve our concepts and theories for the application exercise".

6.8 The Relationship between the Students' Perception towards Team-Based Learning and their Learning Outcomes

Research Question 5 (RQ5) aimed to examine the effect of Team-Based Learning on the learning outcomes among the students' respondents. The respondents were required to indicate their current carry marks for this unit in Section A of the Evaluation of Team-Based Learning Questionnaire. The carry marks refer to the total scores for the Individual Tests, Team Tests, and the Team Application Exercises. These findings are essential to answer the following research question.

This research question investigates the effect of Team-Based Learning on the students' learning outcomes after the implementation of the Team-Based Learning session. The tested hypothesis was as follow: -

$H_0 2$: There is no significant relationship between the students' perception towards Team-Based Learning and learning outcomes among business students in a private international higher education institution.

Therefore, Pearson Moment Correlation Analysis was carried out to determine the relationship between the students' perception towards Team-Based Learning and learning outcomes.

6.8.1 Assumptions Testing

Some underlying assumptions must be met before correlational analysis can be carried out. The first assumption is that the data must be collected from related pairs which mean both sets of data must be gathered from the same respondent. Secondly, the data collected should follow a continuous or ordinal scale of measurement. The third assumption is that the scores for each variable should be normally distributed. The fourth assumption is the relationship between the two variables must be linear, and lastly, the scores must be clustered uniformly about the regression line. Assumption 1 and 2 are a matter of research design. Assumption 3 can be tested using normality tests as outlined below. Finally, Assumptions 4 and 5 can be tested by determining the scatterplots of the variables.

6.8.2 Normality Test

Kolmogorov-Smirnov Test and Skewness Values were used to test the normality of the data. The scores for each variable must be normally distributed. The independent variable in this study is the students' perception towards Team-Based Learning whereas the dependent variable is the students' learning outcomes which included their total scores for the individual test, team tests, and team application exercises. Kolmogorov-Smirnov Test of Normality showed that the collected data for the students' perception and learning outcome scores were normally distributed as shown in Table 6.16. The p-value for students' perception towards Team-Based Learning (0.161) and their learning outcome scores (0.121) was higher than 0.05. Hence, the scores for both the dependent and independent variables were normally distributed.

Table 6.16 Kolmogorov-Smirnov Test of Normality for Students' Perception and Learning Outcomes (n= 30)

Variables	Kolmogorov-Smirnov Statistic	df	*p*-value
Students' Perception of TBL	0.136	30	0.161
Learning Outcome Scores	0.143	30	0.121

Subsequently, the Skewness Values were also determined to test the normality of the scores for each variable as shown in Table 6.17. Skewness values fall in the range of -2 and +2 show the normality of data. Skewness Values for both the pre-implementation and post- implementation surveys scores were within the acceptable range of -2 and +2. The negative values for skewness of the students' perception towards Team-Based Learning (-1.403) and the learning outcome scores (-0.179) imply a negative skew. Therefore, it was verified that the scores for both variables were normally distributed.

Table 6.17 Skewness Values for Pre-Implementation and Post-Implementation Surveys Scores (n= 30)

Scores	Skewness Value	Std. Error
Students' Perception of TBL	-1.403	0.427
Learning Outcome Scores	-0.179	0.427

6.8.3 Linearity Test

The scatterplot shown in Figure 6.3 indicated that assumptions of linearity and homoscedasticity were not violated. There is a linear relationship between the students' perception towards Team-Based Learning and their learning outcome scores.

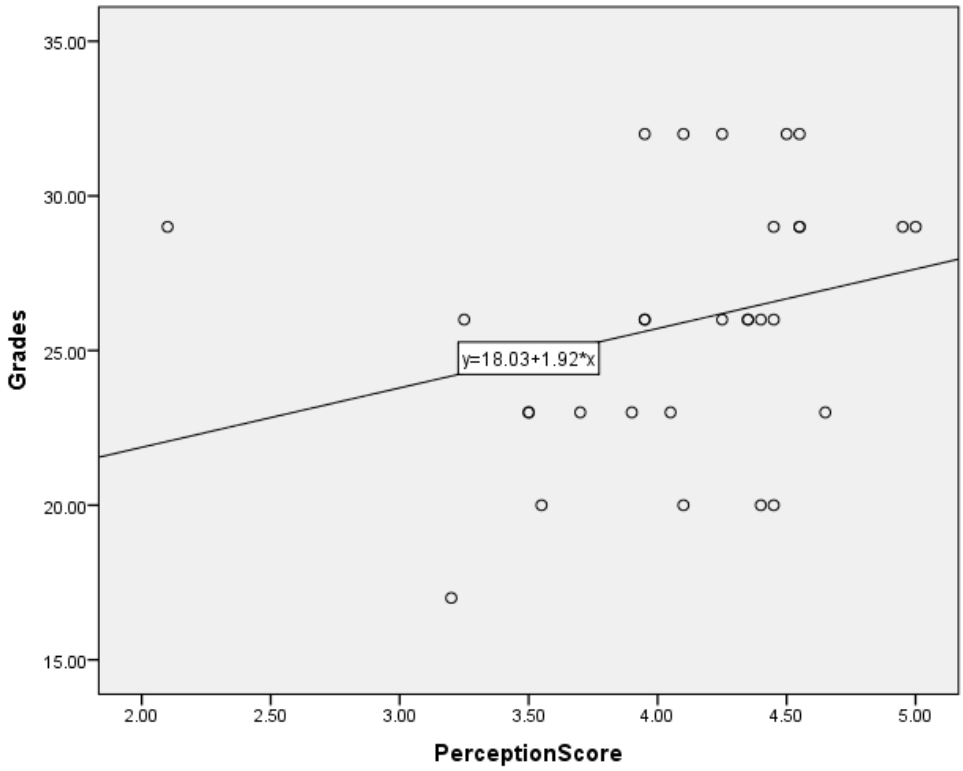


Figure 6.3 Scatterplot Showing the Linear Relationship between the Students' Perception of Team-Based Learning and Learning Outcome Scores (n=30)

All the assumptions mentioned above were met. Therefore, Pearson Moment Correlation Analysis can be undertaken in the following section to investigate the relationship between the students' perception towards Team-Based Learning and their learning outcome.

6.8.4 Evaluation of the Relationship between the Students' Perception of Team-Based Learning and their Learning Outcomes

The strength of the relationship between the students' perception towards Team-Based Learning and their learning outcome was determined based on Fraenkel and Wallen's (1993) criteria as shown in Table 6.18.

Table 6.18 Interpretation of the Pearson's Correlation Coefficient, r Values (n= 30)

Pearson's Coefficient (r)	Strength of Relationship
0.80 – 1.00	Very Strong
0.60 – 0.79	Strong
0.40 – 0.59	Moderate
0.20 – 0.39	Weak
0.00 – 0.19	Negligible to very weak

Table 6.19 showed the results of Pearson correlation analyses for the relationship between the students' perception towards Team-Based Learning and their learning outcome.

Table 6.19 Pearson Correlation Analysis Results (n= 30)

Students' Perception of TBL	Learning Outcome Scores	
	r	*p*-value
	0.270	0.074

Note. r= Pearson Correlation Coefficients,
*Correlation was significant at the 0.05 level

Null hypothesis 2 states that there is no significant relationship between the students' perception towards Team-Based Learning and learning outcomes among university business students. The results in Table 6.19 showed that the null hypothesis is not rejected (r= 0.270, p > 0.05). The *p*-value in this study is greater than 0.05, and the strength of the relationship between the variables are relatively weak. Thus, null hypothesis 2 is not rejected that there is no significant relationship between the students' perception towards Team-Based Learning and learning outcomes among business students at a private higher education institution in Sarawak. The students' perception towards Team-Based Learning does not significantly affect the learning outcomes among university business students.

6.9 Summary of Findings from Evaluation Phase

Table 6.20 showed the overall summary of the quantitative findings obtained from the pre-implementation and post- implementation surveys scores. The findings were analysed using the Statistical Package for the Social Sciences (SPSS) Version 23.0 to be following the evaluation phase of KEMP Model to answer Research Questions 3 and 4 of this study. A Paired t-test was conducted to investigate the difference in the students' perception before and after the implementation of Team-Based Learning. Subsequently, Pearson Correlation Analysis was used to study the relationship between the students' perception towards Team-Based Learning and their learning outcomes. The Evaluation of Team-Based Learning Questionnaire was the research instrument that used as the pre and post-implementation surveys for this study.

Table 6.20 Summary of the Quantitative Findings from Evaluation Phase

Pre-Implementation and Post-Implementation Surveys	Findings
The Students' Perception towards Team-Based Learning and Teamwork in Team-Based Learning	There is no significant difference in the students' per ception towards Team-Based Learning and Team-work in Team-Based Learning before and after the implementation of Team-Based Learning.
The Relationship between the Students' Perception towards Team-Based Learning and their Learning Outcomes	There is no significant relationship between the stu-dents' perception towards Team-Based Learning and learning outcomes among the business students in a private international higher education institution.

In summary, the research instrument used in this study was reliable and appropriate. All the underlying assumptions were met before the t-test, and correlation analysis was undertaken. Generally, the business students' perception towards Team-Based Learning for both the pre-implementation and post- implementation surveys was at the good level. The students perceived Teamwork as an essential element in Team-Based Learning. The findings from the study showed no significant difference in the students' perception before and after the implementation of Team-Based Learning. The students' respondents felt that Team Readiness Assurance Tests (T-RAT) and Individual Readiness Assurance Tests (I-RAT) discussions could allow them to correct their mistakes and improve their understanding of the course concepts. However, the respondents were not confident that they could read the required readings before attending the lecture. Eventually, this study also showed that there was no significant relationship between the students' perception towards Team-Based Learning and learning outcomes among university business students.

The qualitative findings of the students' perception towards Team-Based Learning and Teamwork in Team-Based Learning are summarised in Table 6.21 as follow: -

Table 6.21 Summary of the Qualitative Findings for the Students' Perception towards Team-Based Learning and Teamwork in Team-Based Learning

Students' Perception towards Team-Based Learning (TBL) 1. TBL corrects their mistakes. 2. TBL improves their understanding of the course concepts. 3. TBL increases their self-efficacy to pass the unit. 4. TBL enhances their understanding of the course learning materials. 5. Majority of them prefer TBL assessment to traditional final examination method.
Students' Perception towards Teamwork in Team-Based Learning (TBL) 1. TBL builds up team cohesiveness among team members. 2. There was mutual respect among team members during team discussions. 3. Diverse team members contribute new ideas and more accurate answers for the team tests. 4. Diverse teams establish communication skills among the team members. 5. Solving problems in teams is an effective way to learn.

These qualitative findings substantiate the quantitative data gathered using the Evaluation of Team-Based Learning Questionnaire. Generally, the students perceived that Team-Based Learning can be able to correct their mistakes and improve their understanding of the course concepts. They believed that Team-Based Learning increases their self-efficacy to pass the unit and enhances their understanding of the course learning

materials. Overall, majority of the students prefer continuous Team-Based Learning assessment over traditional final examination method.

Furthermore, the students believed Team-Based Learning builds up great team cohesiveness among team members that would eventually lead to their team success. Their responses indicated that there was mutual respect among their team members during team discussions. They perceived diverse team members as essential to contribute new ideas and more accurate answers for the team tests by establishing greater communication skills among the team members. Solving problems in teams is perceived by the students as an effective way to learn.

The qualitative findings from the evaluation phase have also provided data regarding the methods and strategies to improve the implementation of Team-based Learning for business education in a private international higher education institution as tabulated in Table 6.22.

Table 6.22 Summary of the Qualitative Findings for the Methods and Strategies to Improve Team-Based Learning

Main Themes	Suggested Methods and Strategies to Improve Team-Based Learning
Pre-Class Preparation	Create more pre-class preparation e-tivities.
Individual Readiness Assurance Process Tests	To bold or highlight the relevant key words in the questions
Group Readiness Assurance Process Tests	Replace the IF-@ form with response apps or software. Develop team dynamics based on the four stages of team development processes. Instructor should act as an active facilitator to make sure all members contribute to the tests. Extra time to be given to teams with disagreement or conflicts.
Case Study Team Application Exercises	Clear instructions and requirements should be provided by the tutor, especially in the first application exercise. Have the RAP Tests before the team application exercises as revision. To create a stress-free environment for the students. To redesign the tasks and questions that require input from each member.

Refinement will be made in the future iterations of postgraduates' study based on the feedback and recommendations suggested by the student respondents. A well-designed Team-Based Learning curriculum starts by ensuring that the intended learning outcomes (ILO), teaching and learning activities (TLA) and assessment tasks are aligned, and their grading is supporting each other (Biggs & Tang, 2011). Subsequently, the

findings indicated that there is an imperative need to highlight or bold the keywords in all the questions of Individual Tests. The instructors believe that the students were not doing well in their Individual Tests due to lack of preparation problem. Therefore, there is a demanding need to prepare and upload more short lecture videos to the Blackboard Learning System and followed by relevant e-tivities, as suggested by the students to assist them at the preparation stage. Blackboard Learning System should be fully utilised as a platform to ensure that the students read and prepare before classes.

The above findings suggested that there is a need to replace the scratching method using IF-@ Form with relevant software or application to save time and costs. Moreover, the findings also implied that the teamwork issue existed in the implementation of Team-Based Learning activities. In conjunction with this, there is a need to allow the students to choose their team members with the condition that their teams must consist of diverse team members with different genders, academic and cultural background, races, ethnicities, and academic abilities. Their team dynamics should be developed sufficiently based on the four stages of team formation processes. The instructors should act as an active facilitator to make sure all members contribute to the tests. The students were suggested to be evaluated based on their participation and involvement in the team-based tests. It was also suggested to provide extra time to the teams with any disagreement or different opinions to resolve their conflicts.

Eventually, there is a need to be tolerated upon the students' requests to conduct the Individual and Team tests as revision before the Team Application Exercises assessment to build up the students' knowledge of the concept and theories learned. Additionally, the instructors should work out for a conducive and stress-free environment for the students, particularly for the team application exercises assessment. In order to

reduce the teamwork issue in the case study team application exercises, there is a need to redesign the assessment questions and tasks that require input and contribution from each individual within a team. Ultimately, the instructors are required to provide more precise instructions and briefly explain the requirements of the cases and questions to the students before the exercises.

6.10 Summary

This chapter analysed the findings for Research Questions 2, 3 and 4 of this study. Statistical Package for the Social Sciences (SPSS) Version 23.0 was used as the data analysis technique to analyse the quantitative data obtained from the student respondents via the Evaluation of Team-Based Learning Questionnaire. Nonetheless, the qualitative data of the students' suggestions for the methods and strategies to improve the Team-Based Learning approach were gathered using an online survey on Google Forms Application. Meaningful results were analysed and produced, and will be used for the interpretation of discussion and conclusion purposes in Chapter 7.

CHAPTER 7

DISCUSSION AND CONCLUSION

7.0 Introduction

This chapter discusses the research findings reported in Chapter 4 to Chapter 6, summarises the research methodology of this study, outlines the implications of this study and presents the recommendations for future research. Finally, this chapter also concludes the entire study. Generally, this chapter consists of four parts.

The first part of this chapter summarises this whole research based on four phases of this study. The second part discusses the qualitative findings of this study, which covers Research Questions 1, 2, and 3. This part includes the documentation analysis and face-to-face in-depth interviews results obtained from the students and instructors respondents before, after, and throughout the implementation of the Team-Based Learning interventional period. The qualitative findings are discussed based on relevant empirical research and theories. The next part of this chapter discusses the quantitative findings of this study to cover Research Questions 4 and 5. These quantitative data are crucial to verify the usability of Team-Based Learning in business education and the strategies to improve this learning intervention based on the needs of business students in a private international higher education institution. Past empirical findings are compared and discussed in this part, supported by relevant theories where applicable. The final part of this chapter concludes and discusses both the qualitative and quantitative findings drawn from the data analysis process. The implications of the findings and the suggestions for

future studies are also provided in the last part of this chapter.

7.1 Summary of the Study

This study was conducted based on four phases derived from the KEMP's Model which was chosen as the framework of this research. This research was also aligned with the nine elements of the KEMP's Model. The four phases of this study were the needs analysis phase, the design and development phase, the implementation phase, and the evaluation phase. This study was carried out among the Bachelor of Business program students in a private international higher education institution in Malaysia. This university was chosen because its main campus is encouraging their academic staff to conduct Team-Based Learning actively as one of their new instructional strategies.

Recently, universities and colleges are implementing group-based learning activities that are believed to be able to enhance higher-order understanding among the students. Team-Based Learning is one of the group-based teaching and learning approaches that was believed by most of the researchers to be able to enhance teamwork skills and both individual and group conceptual learning. Empirical evidence revealed that Team-Based Learning is a practical approach to improving students' achievement, learning outcomes, and the development of group cohesiveness among the members.

This study is a Design-Based Research that was designed and developed based on the issues faced by the Bachelor of Business students in a private international higher education institution in Malaysia. Design-Based Research is an educational research methodology that makes use of the design of educational interventions that focuses on solving complex educational problems in a defined setting to develop advanced learning

theory, and this process is iterative in nature. The instructional issues faced by the business students were investigated via the first phase, which is the needs analysis phase of this study. Needs analysis phase is essential to determine the instructional gaps and problem faced by the students within the setting and eventually identifies areas that need to be improved. These findings were the basis used in the design and development phases. Before the actual data collection process, instructional issues faced by the university business students were identified based on the interviews with six 'at risk' students and two expert instructors who were also the instructors for the unit studied in this research.

This study was developed based on the instructional issues faced by the business students in a private international higher education institution in Malaysia all this while. Instructional needs refer to the problems faced by the business students in the art or practice of teaching and learning. Based on the findings obtained during the preliminary needs analysis phase, it was found that there were four main instructional issues faced by the business students generally. These mentioned issues are 'lack of interactivity', 'lack of learning skills', 'lack of practical exposure', and 'personal efforts to achieve targeted goals' issues. As discussed before, Team-Based Learning is seen as a pedagogical approach that has the potential to assist students to enhance their achievement, learning outcomes, teamwork and higher-order thinking skills among the team members. Therefore, there is a pressing need to introduce Team-Based Learning approach in business education as new teaching and learning method to improve the students' teaching and learning, practical application, and personal learning skills.

The second phase of this study was the design and development phase of the Team-Based Learning activities. The learning activities were designed and developed based on the qualitative data obtained from the student and instructor respondents in the

previous needs analysis phase. The methods and strategies to improve the developed Team-Based Learning activities were gathered by using the one-to-one semi-structured interview method which involved two expert instructor respondents. The designed and developed pre-class preparation and application exercise activities parts were further refined after getting the validation and confirmation of contents by two expert instructors.

The refined Team-Based Learning activities were implemented on one group of Year 2 Bachelor of Business students in a private international higher education institution in Malaysia. After the implementation phase, the comments and suggestions proposed by the student respondents via the online survey on Google Forms Application were improvised to improve Team-Based Learning approach in the future iterations further. In the final evaluation phase of Team-Based Learning, a pre-implementation and a post- implementation surveys study were conducted to assess the effectiveness of the new learning approach undergone by the students.

Implementation and Evaluation phases were combined to determine better methods and strategies to improve Team-Based Learning that could be incorporated in the design and development phases of future iterations. 30 students have voluntarily participated in this study. A pre- implementation and post- implementation surveys study were administered to examine whether the implementation of Team-Based Learning approach could be able to improve the respondents' perception towards the new approach and the importance of teamwork in learning. The findings from these two phases concluded that Team-Based Learning activities should be perfected based on four stages of Team-Based Learning approach, namely Pre-Class Preparation, Individual Readiness Assurance Process Tests (I-RAT), Team Readiness Assurance Process Tests (T-RAT), and Case Study Team Application Exercises.

An Evaluation of Team-Based Learning Questionnaire was used as both the pre-implementation and post- implementation surveys in this study. The relationship between the respondents' perception towards Team-Based Learning and their learning outcomes were also investigated in this stage. The respondents' carry marks for this studied unit were indicated in the first section of the questionnaire and were referred to as the mentioned learning outcomes. These findings obtained were supported by the qualitative data, which focused on the challenges of Team-Based Learning and strategies to improve this new approach. In conclusion, the effectiveness, the students' perception, and the instructors' view on the usability of Team-Based Learning and strategies to improve this approach were examined in this study.

7.2 Discussion of the Research Findings

This section is separated into three parts. The first part reports the discussion on the findings of the needs analysis phase. The second part discusses the findings of the design and development phase. Eventually, the last part presents the discussion on the findings of the implementation and evaluation phases on the effectiveness of Team-Based Learning, the student respondents' perception towards this approach before and after its implementation, and their suggestions of methods and strategies to improve this learning approach further.

7.3 Discussion of the Needs Analysis Phase Findings

Findings of the needs analysis phase intended to answer Research Question 1 as indicated below: -

RQ1: What are the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives?

The findings obtained during the preliminary needs analysis phase revealed that there were four main instructional issues faced by the business students in general. These instructional issues are teaching issues, learning issues, practical exposure issues, and lack of personal efforts issues.

7.3.1 Lack of Interactivity Issues

Hong et al. (2012) proposed that there is always a lack of class interaction among the students and between the educators and their students. There is inadequate feedback, in-class practices and insufficient assessment requirements provided by the instructors. The qualitative findings that emerged from phase one of this study show that the lack of interaction between instructors and students in lecture could not make the students' thinking visible and might lead to misconceptions regarding subject areas (Powell et al., 2011). These students were denoted as weak in the real-life application, particularly in solving case study and could not be able to relate the learning contents with other topics and course of study. Moreover, the students were unmotivated to attend classes as well. The responses gained in this study truly proved this issue.

The second concern regarding the traditional and passive learning environment was that there is a lack of interaction between the educators and their students as indicated by Hong et al. (2012) previously. The main reason for poor students' engagement in university is that the majority of them were not well-prepared for their lecture (Hong et al., 2012). Therefore, there is a need to use the Blackboard Learning System as a platform to

make sure that the students read and prepare before classes. Blackboard web-based learning management system ought to be used extensively in the preparation stage of Team-Based Learning to ensure better learning experience (Pauleen et al., 2004; Whitley et al., 2015). Blackboard Learning System enables the educator to manage online learning environments by using utilities such as assessment management via grade centre, assignment management via Turnitin, content management and content sharing, and collaboration and communication via the discussion board. The environment was grounded in constructivism learning theories by placing students in a meaningful and non-classroom environment (Whitley et al., 2015).

Additionally, Malaysian Ministry of Higher Education (MOHE) found that there is a gap in students' expectation towards the academic staffs in which they expect more class interaction and psychological support by their lecturers (Chong & Amli, 2013). This gap occurs when students need to pay higher tuition fees, and as a result, they might demand for well-taught and higher-profile programmes that will enhance their employment advantage. Consequently, universities should focus on the quality of their graduates instead of the quantity of student admission. Universities should not be like any other corporation to sells education to provide the market needs.

Furthermore, instructor-centred education is the current teaching and learning trend of our country in which the students are insisted on putting all their focus on the teacher in class exclusively. They are required to work alone in class activities in which collaboration with other students is discouraged. This issue will eventually constraint their communication skills that are considered crucial in the future world of business. For most of us, paying attention is a given. However, it is undeniable that there are students who suffer from attention deficit problem. They have a difficult, even impossible, time

concentrating. These students have a hard time following instruction, can be easily distracted, and cannot be able to focus for more than ten minutes (Causse, 2010).

The qualitative findings obtained in the needs analysis phase showed that there is a compelling need to incorporate Team-Based Learning approach in business education to meet the instructional needs of the business students. Generally, the Team-Based Learning was designed based on both Macro-curriculum and Micro-curriculum levels of educational activity in the curriculum design. Macro-curriculum embraces out-of-class activities, such as preparation before class, guidance and counselling after class while the micro-curriculum is referred to classroom-based activities, including the planning and implementation of classroom instructional, pedagogical, and Team-Based Learning assessment decisions (Hlebowitsh, 2005).

7.3.2 Lack of Learning Skills Issues

The next issue as revealed from the interviews with the student and instructor respondents was that business students are lack of higher-order thinking skills as proposed by Chiew & Siraj (2013) and learning skills such as reading, writing, and revising skills as reported by Ortenblas et al. (2013). Bloom's taxonomy was used in the preparation of the assessment questions to define the difficulty level of every question so that they are useful in assessing high-order thinking. Additionally, Swart (2010) also indicated the effectiveness of using Bloom's Taxonomy for engaging business students in higher-order thinking. Kim et al. (2016) concluded that incorporation of Bloom's Taxonomy into multiple-choice examination questions is useful in assessing critical-thinking skills in classes. However, it is challenging to incorporate higher-order thinking into teaching and learning process as presented by Jerome, Julia and Ting (2017).

Most of the literature reported that the university business students were lack of higher-order thinking skills such as problem-solving and decision-making skills (Chiew & Siraj, 2013), as well as analytical and critical thinking skills (Ortenblas et al., 2013). Recently, Jerome, Julia, and Ting (2017) imposed that it is challenging to incorporate higher-order thinking skills into teaching and student learning. The findings indicated that little is known about the business pedagogy and resources to enhance the understanding of business students in higher education (Cheesman et al., 2010). There were also insufficient studies on university accounting and business students' learning approaches (Ortenblas et al., 2013). Consequently, misconception issue will occur among the business students that would eventually hinder their higher-order thinking (Powell et al., 2011).

Generally, the business educators are too emphasised on the hard skills such as technical skills and business knowledge while the business employers are concerned about the applicants' learning skills such as interpersonal, communication, leadership, collaboration and teamwork skills that would increase the employability of the business students nowadays (Khaled & Maysoon, 2018). These findings also supported the next practical exposure issue in which the students commented that they have insufficient knowledge for the expectation of future workplace and the instructors were too focus on concepts and theories in their teaching.

In the traditional settings of business classrooms, the students are used to passive "Talk and Chalk" learning environment that does not be able to develop the students' active learning and application abilities. The diffusion method of instruction is unsatis-factory to boost quality education (Pitler et al., 2012). According to the findings, there is a need to incorporate real-life case study in the Team-Based Learning activities to enable

the students to connect the theories and concepts learned in the real world. Gagné (1985) suggested that learning activities should be structured to engage problem solving and to ensure higher order understanding by concerning nine instructional events- gaining attention, telling learners the learning outcome, stimulating recall of prior learning, presenting the stimulus, providing learning guidance, eliciting performance, providing feedback, assessing performance, and enhancing retention and transfer to other contents.

These findings imposed the urgency of implementing Team-Based Learning intervention in higher education to promote student-centred approach among business students. Whitley et al. (2015) who studied the development, preparation, implementation, assessment, and evaluation processes to improve the effectiveness of Team-Based Learning supported these findings. It was found that Team-Based Learning is useful to enhance learners' involvement, class discussion, and active learning that would subsequently improve reading, writing, and revising skills among the students.

The development of instructional materials was based on Deep Teaching Approach. The students were guided to generate their new knowledge by relating their previous knowledge gained from different courses to new knowledge rather than merely memorised the learning contents. The educator encouraged the students to relate the theoretical ideas to their everyday experience and give chances to the students to organise and structure the contents into a coherent whole. The rationale of this approach is that most of the students are Year 2 Bachelor of Business students who share one common aim to build the very bottom layer of skills and attitudes that will help them in developing employability skills and building academic study skills to prepare them for future units in their final year.

7.3.3 Practical Exposure Issues

Surprisingly, Khaled and Maysoon (2018) reported that there is a gap between the business students' competencies and skills provided by the business universities and the needs of the current job market. According to the authors, the business educators are too emphasised on the hard skills such as technical skills, thinking skills, and business knowledge. However, the business employers are more concerned about the applicants' employable skills such as interpersonal, communication, leadership, work ethics, social responsibility, collaboration and teamwork skills. These learning skills are believed to be able to increase the employability of the students. The students have insufficient knowledge for the expectation of future workplace and the instructors were too focus on concepts and theories in their teaching. The Ernst & Young Report (2015) also conveyed that three-quarters of the employers in the Gulf Cooperation Council (GCC), including Qatar were also indicated that the fresh graduates are not well-equipped with necessary learning skills. Additionally, Lopez-Navarro and Segarra-Cipres (2015) who concerned about the welfare of business stakeholders commented that Corporate Social Responsibility (CSR) and social ethics issues are inadequately covered in current business education.

On top of enhancing the business students' thinking skills, there is a need to design and develop Team-Based Learning activities and assessment that are related to their learning skills to match industry needs and to prepare them for their future career. More real-life case study practices should be incorporated in the Team-Based Learning activities. This strategy is essential to increase the employability of the business students (Khaled & Maysoon, 2018). According to the literature, business educators are too emphasised on the hard skills while the business employers are more concerned about the candidates'

learning skills. Unfortunately, our fresh graduates are not well-equipped with necessary learning skills such as interpersonal, communication, leadership, collaboration, ethics and social responsibilities skills (Lopez-Navarro & Segarra-Cipres, 2015).

7.3.4 Personal Effort Issues

Tweddell at al. (2016) also emphasised the issue of poor students' engagement in university and reported that a majority of students were not well-prepared for their lecture. Seemingly, Tweddell et al. (2016) concluded that Team-Based Learning could improve students' engagement, learning satisfaction, higher-order thinking and application skills in the future workplace. Besides, it was also believed that Team-Based Learning could be able to generate interest among the students by encouraging them to do proper preparation before classes (Kim et al., 2016). The instructors should act as an active facilitator to ensure that all students are participating in the team-based activities in order to prevent 'free-riders' issue as suggested by the students (Michaelsen & Sweet, 2011).

The interviews outcomes indicated that business students are lack of personal effort to prepare for classes and refuse to do revision and practices after classes. This finding is aligned with the findings from Tweddell et al. (2016). Therefore, there is a need to replace the final examination with continuous Team-Based Learning assessment to test the students' readiness and understanding before and after classes. It is expected that teaching and learning process will become more interesting and not boring for the students after the instructors include challenging hands-on individual and team assessments that are aligned with their intended learning outcomes. The teaching and learning processes are better planned, and students become more self-reliant in completing the tasks given. The assessment can be able to develop the five multiple intelligences in Gardner's

Theory such as logical, spatial, linguistic, interpersonal, and intrapersonal intelligences (Brualdi, 1996).

7.4 Discussion of the Design and Development Phases Findings

Findings gained from the design and development phases envisioned to answer Research Question 2 as specified below: -

RQ2: What are the experts' views on the elements that should be incorporated in the development of the Team-Based Learning activities for business education in a private international higher education institution?

One-to-one semi-structured interviews were conducted with two expert instructors to validate and confirm the developed Team-based Learning activities module which serves as guidance for directions on Team-Based Learning activities to the instructor. Overall, the findings obtained from this phase suggested that Team-Based Learning could be further improved in term of the Pre-Class Preparation and Case Study Team Application Exercises activities as recommended by the expert instructors. The instructional issues identified in the needs analysis phase were also considered in the design and development phases.

7.4.1 Pre-Class Preparation

In order to further improve the developed Team-Based Learning activities, the expert instructors suggested to upload more short lecture videos to enhance the students' understanding for difficult topics. According to Lin & Dwyer (2010), graphic, animation, and colour are considered essential for improving complex learning than conventional

static teaching method. The video was designed based on the Cognitive Theory of Multimedia Learning. This theory assumes that information processing system of a human includes dual-channel for visual and auditory processing, each channel is limited in the capacity for processing the information, and active learning involves cognitive processing in connecting visual and auditory representations (Mayer, 2001). Cognitive load is the most critical factor in the design of multimedia instruction (Lin & Dwyer, 2010). According to the Cognitive Load Theory, processing capacities of pictorial and auditory working memories are limited. Overload can occur when too many complex elements are processed in visual or verbal working until some of the elements are not processed (Mayer & Moreno, 2002). Therefore, the lecture videos need to be brief but concise (preferably less than 10 minutes) so that the videos are more tempting to the students.

7.4.2 Team Application Exercises

There was a couple of suggestions to improve team application exercises assessment. The respondents proposed to allow the students to type their answers using laptops, instead of writing out their answers. The usage of ICT in the student learning activities helps to expose them to different teaching and learning methods. The students should be given an option whether to type or write the answers. This suggestion was supported by Chen et al. (2005) who suggested that students would learn better when the learning activities were implemented in a way consistent with their favoured learning styles. Learning style is one of the most critical human factors that might affect students' learning performance in which students will only show passing interest if their learning needs or difficulties have not been considered (Hwang et al. 2012).

In addition, it was suggested by the instructor respondents to extend the time allocated for the team application exercises from 1 hour to 1 hour and 30 minutes. The rationale of this recommendation was a student who suffers from depression in this class, and it is unpredictable that there might be more in the future semesters. Depression is a state of low mood and aversion to activity that can affect a person's thoughts, behaviour, feelings and sense of well-being. The persistently depressed moods caused difficulty concentrating, inability to sleep, low energy, which is impairing her function to study (Causse, 2010). Based on the researcher's experience, some students diagnosed with bipolar disorder and epilepsy students in this class in the previous semesters. Bipolar disorder is a mood disorder associated with periods of elation and hyperactivity and periods of depression. This illness causes inattention, impulsivity, hyperactivity, irritability and aggressive symptoms. Epilepsy is a neurological disorder that causes brain activity to become abnormal and lead to seizures that start in the brain. In accordance with Academic Courses Regulation 41, the University may agree on reasonable adjustments to assessment requirements for a student with a verified disability, medical or other condition to provide equality of opportunity to fulfil course requirements. With extra time is mandated to be provided for tests and exams.

Concerning the suggestions by the instructors to allocate 30 minutes for team presentation instantaneously after the team application exercises via peer-to-peer inter-teams' debates, business students in higher education need to be reminded about the importance of experiential 'story-telling' learning. This suggestion is coherent with the findings reported by Michaelsen et al. in 2014. The students are required to elaborate their answers as the outcome of their team discussion in which inter-teams' debates are encouraged in this case. This recommendation is sustained by Social Learning Theory that emphasises the importance of learning by observing others and modelling the behaviours

that would lead to favourable results. This suggestion can also associate with Social Constructivist Theory as proposed by Lev Vygotsky. This method is compatible with More Knowledgeable Other (MKO) that explains how a learner learns from others. MKO is someone, not necessarily a teacher, with higher order of thinking ability to perform a task and can be able to understand a concept better (Leatherbury, 2016). Vygotsky assumed that some of the team members might be the MKO who could help and share information with the other members to increase knowledge.

The instructors will provide immediate feedback and wrap up the session on the spot. Feedback is also one of an important criterion to evaluate the effectiveness of the new learning approach to the students. Valuable feed-forward feedback is essential to the students by not only focusing on the past and the present but also to improve future assessment (Meyers & Nulty, 2009). Even though they are not involved in the debates, they could still learn behavioural consequences by observing the experience of other people. In conjunction with Social Learning Theory, Constructivism is also viewed as a learning theory that widely used by most of the curriculum developers as their teaching and learning paradigm (Lizer, 2013). Constructivism curriculum design allows the students to regenerate the experiences gained with their previous idea to turn out into new knowledge. Students can learn better by constructing their understanding and knowledge (Gagnon & Collay, 2006). Students were required to involve and experience the learning process through reflections. Knowledge construction is a mental process in which the students take many separate pieces of information and uses them to build an overall understanding and interpretation.

7.5 Discussion of the Implementation and Evaluation Phases Findings

After the Team-Based Learning activities were evaluated and improvised according to the suggestions of the experts, it was implemented on a group of students that involved two business instructors who were the unit convenor and tutor of the unit studied in this research. Consecutively, the students' suggestions of the methods and strategies to improve Team-Based Learning were recorded on an online worksheet designed and developed using Google Forms Application after the implementation process. Findings for this stage aimed to answer Research Question 3 as follow: -

RQ3: Which are the methods and strategies to improve Team-Based Learning activities for business education in a private international higher education institution based on the students' recommendations after the implementation of the Team-Based Learning approach?

7.6 Discussion of the Findings for the Methods and Strategies to Improve Team-Based Learning

The student respondents recommended that the Team-Based Learning activities can be further improved based on the four phases of Team-Based Learning, namely 'Pre-Class Preparation', 'Individual Readiness Assurance Process Tests', 'Team Readiness Assurance Process Tests', and 'Case Study Team Application Exercises'. The following are the discussions of the findings acquired from the students.

7.6.1 Pre-Class Preparation

The students suggested to create more pre-class self-preparation activities for the difficult topics to prepare the students for the tests. Thus, recorded lecture videos will be developed for three difficult topics as identified by the researcher and the subject experts and followed by three e-tivities at the beginning, middle and end of the semester to enhance students' understanding after watching the pre-lecture videos. This is crucial to provide continuous feedback to the students and to ensure that the students prepare before class as suggested by the students and instructors in needs analysis, design and development phases. It is believed that e-tivities are effective for enabling participative online learning by individual student and teams (Salmon, 2013). Herrington, Reeves, and Oliver (2010) reported that e-tivities are essential to enhance students' engagement and interactivity in class by developing their knowledge via authentic tasks and situation.

E-tivities involve wide range of diverse learners to learn by constructing knowledge through and with others. E-tivities enable researchers, curriculum designers and developers to create an active online participation environment for their students. Instructors play the role as e-moderators to scaffold and support their students in achieving the intended learning objectives by creating an active online learning community (Hoyos & Cano, 2016). The e-moderators should be well-equipped with the competencies of knowing when to control groups, how to pace discussions, when to let go, how to bring in non-participants and can be able to apply a range of teaching and learning approaches to freewheeling discussions (Salmon, 2011).

7.6.2 Individual Readiness Assurance Process Tests

Generally, the Individual Readiness Assurance Test was well accepted by the respondents. Nevertheless, the respondents suggested that this assessment could be perfected by highlighting or bold the keywords in each question. They were also requested to upload more lecture videos to the Blackboard Learning System and conduct more e-tivities to assist the students to be better prepared for the individual tests. The findings are consistent with the suggestions proposed by Whitley et al. in 2015. This action is necessary because graphic, animation and colour are considered essential for improving complex learning than conventional static teaching method (Lin & Dwyer, 2010). The students are anticipated to be more confident in asking and answering questions after watching the video lectures and participating in the related e-tivities. As a result, recorded lecture videos will be developed for three difficult topics as identified by the researcher and the subject experts and followed by three relevant e-tivities to be conducted at the beginning, middle and end of the semester. Cognitive Load Theory should be applied in the development of teaching aids to ensure the information presented in the videos would not be overloaded the students' working memory. The Blackboard Learning System was one of the digital learning technologies that used to measure and increase learners' performance, improve instructors' productivity, and to ensure Web-enhanced based teaching and learning (Larkin & Belson, 2005).

7.6.3 Team Readiness Assurance Process Tests

As for the Team Readiness Assurance Tests, it was recommended to replace the IF-@ Form with technology to save time and cost. The finding is mostly aligned with the idea of River et al. (2016) who highlighted the values of incorporating technology into Team-Based Learning. It is the university's culture to motivate students' learning using

technology and gamification apps like Quitch mobile learning application. Currently, Information Communication Technology (ICT) is recommended to be used as instructional material to scale up quality learning (Lin & Dwyer, 2010). The curriculum should be customised by adapting various types of the software program that facilitate students to customise their learning experiences (Ornstein & Hunkins, 2009).

The usage of ICT such as Clickers will also increase the level of interactions between learners and instructor, especially in a large lecture class instruction (Hong et al., 2012). The instructions become more student-centred with teacher and lecturers as their facilitators. According to Stagg and Land (2010), e-Clickers technology can facilitate active learning and engagement among undergraduate and postgraduate students. Clickers increase students' engagement, attendance and make the lecture teaching fun. mQlicker, a free audience response system for smartphones and tablets can be used as teaching and learning activity in combination with Blackboard materials. Quitch application was formerly known as HEd Mobile Learning Application and Gamification. It is developed and designed by a team led by Dr Grainne Oates, Senior Lecturer in Accounting at the main campus in Melbourne. The Quitch and other gamification elements motivate students to engage in learning. Gamification with points, rewards and badges, encourage students to engage more in their learning in a fun and exciting way.

The students were also requested that they should be allowed to select their team members with the condition that they must consist of diverse members. This suggestion is crucial to creating team cohesion among the team members. Every team must have some minimal level of cohesion to maintain its existence. High-cohesion teams are motivated to maintain their membership and to help their team to perform effectively and thereby reducing dysfunctional conflict (McShane & Von Glinow, 2010). The instructor

and tutor should act as an active facilitator to walk around the class and make sure that all members contribute to the tests. The students might also be evaluated based on their participation and involvement in the discussions.

In order to reduce the team conflict and to build up team cohesiveness among the diverse team members, it was suggested that the instructors should emphasise on Tuckman's five stages of team development processes- Forming, Storming, Norming, Performing, and Adjourning (McShane et al., 2013). The instructors should put more efforts at the Forming, Storming, and Norming stages before the teams can performing as an effective group and finally establish closing procedures with the groups. At the forming stage, more ice-breaking activities should be conducted to help the teams to reflect on what worked well in the team and find ways to solve the elements that did not work well in the team. Instructors play important role in assisting the teams to determine their common goals, identify each members' roles, and set rules for the teams. The team leaders should encourage expression of thoughts, feelings, frustration, and anxieties among the team members to identify underlying team issues at the storming stage. Extra time should be given to the teams with different views to resolve their conflicts. Instructors could step in the norming stage to help the teams to determine their hidden norms and assist them to evaluate the norms or set new norms by promoting open communication in the teams. Cohesiveness among the team members starts to form at the norming stage and begins to function ad an effective team (Tuckman, 1965).

Diverse teams with diverse members are essential as emphasised by Barclay (2011) in the four fundamental principles of Team-Based Learning. Diverse teams are believed to be more effective because people from different background see a problem or opportunity from different angles. Therefore, they are more likely to identify different

solutions to severe problems based on their different pool of competencies and abilities (McShane & Von Glinow, 2010). As an Australian-based international campus, this university is required to design a diverse-cultures curriculum to expand their students' social views across regions and boundaries. As a result, it is critical to developing the curriculum that concerns the university's diversities by forming diverse teams for class activities and assessment purpose (Ornstein & Hunkins, 2009).

7.6.4 Case Study Team Application Exercises

In order to reduce the Teamwork issue mentioned by most of the student respondents, there is a need for the instructor to redesign the assessment questions and tasks that require input and contribution from each team member. The developer should redesign a suitable task that can get all members to contribute by asking for the opinions or sharing experiences from all the members. The original task of the team application exercises was attached in Appendix H. The newly designed task should require the team members to keep the team on track and help each other to integrate the work performed by each member. Instead of asking the students to "outline the theories used in the case", they should be required to "outline the theories used in this case based on the views of each team members by relating the suggested theories to the members' experiences". This requirement demands the team members to know not just their own work, but also the work performed by other team members. Eventually, the team cohesion would be enhanced in which the students are motivated and committed to remain as the team members.

Based on the responses provided by the student respondents, it is interesting to learn that learners' emotion is one of the important factors in affecting their learning

performance. A thought-provoking point made by the students was the focus on relaxation to overcome stress while answering the questions. Thus, the instructor is proposed to work out for a conducive and stress-free environment for the students, particularly for the team application exercises assessment, which is considered as challenging for the students. It is believed that increased stress level can increase one's performance, but only to a certain point. If the pressure increases too much, there will come a point for the learners when, instead of improving performance, increasing pressure will begin to undermine it (Stone, 2011). Therefore, it is necessary for the instructors and developers to deal with this issue carefully.

Another suggested strategy was the response to conduct team application exercises before the individual and team readiness assurance tests. It is indisputable that individual learning is still essential to enable students to learn from both individual and team collocations. Individual learning is to ensure the students get enough background concepts and theories to build up solid knowledge before they move up to higher-order thinking. Building block is the foundation of learning before the application of theory. It is essential because the students' thinking is usually not completely correct and may contain misconceptions or unstable preconceptions that is an educator's obligation to enable them to fully accommodate new learning contents (Kember, Amber & Celine, 2008). Learning occurs through lecture by slowly bridging the theory to practices and applications. Instruction begins with basic theories in teaching and slowly bridges the theories to practices and applications. Knowledge should be acquired on a continuum from simple to complex (Gagnon & Collay, 2006). This is important to surface students' preconceptions and to find out their prior inaccurate learning contents. This approach intended to relate students' previous knowledge and daily experience to new knowledge rather than ask them to memorise the separate part of learning contents.

The last suggestion pointed out by the students' respondents was to provide clearer instructions to the students and to explain the cases to students before the exercises. In Team-Based Learning, the unit lecturers serve more as a facilitator than as a content expert. This suggestion is aligned with the one proposed by Whitley et al. (2015). The scaffolding method is recommended by providing more direction at the beginning of the Team-Based Learning session than the end. The lecturer's responsibility diminished as the students begin to understand the concepts. The instructors play the role of a facilitator to provide feedback and guide the students on how to connect real-world applications of theories and concepts that they have learned. They act as a facilitator and will not be involved directly in the Team-Based Learning activities (Michaelsen et al., 2014). The facilitator should recall the students' knowledge of earlier topics by putting themselves in the students' shoes when delivering the instructions. The essential instructions and critical points should be repeated a couple of times. The cases should be explained to the students in a descriptive way by focusing on the problems of the cases before the exercises by making sure that they are less likely to be distracted by other matters (McShane & Von Glinow, 2010).

7.7 Perception of Team-Based Learning and Teamwork

This evaluation phase anticipated to answer Research Question 4 as presented below. The following are the discussions of the findings acquired from the evaluation phase of this study.

RQ4: How do the business students in a private international higher education institution perceive the practice of Team-Based Learning?

The findings obtained from the one group pre-implementation and post-implementation surveys design-based research showed that the Team-Based Learning was well-perceived by the students generally for the Pre-Implementation Survey (Overall Mean= 3.80, Std. dev= 0.457) and Post-Implementation Survey (Overall Mean= 3.96, Std. dev= 0.649). These findings showed that the null hypotheses were accepted. Hence, there was no significant difference between the pre-implementation and post-implementation surveys mean scores concerning the students' perception towards Team-Based Learning with $t(29)= -1.088$, and $p = 0.285$, following the implementation of the Team-Based Learning activities. Even though the difference between the mean scores for pre-implementation and post-implementation surveys was not significant, but the overall mean scores for both pre-implementation and post-implementation surveys are considered high. These findings indicated that the students positively perceived Team-Based Learning even before the implementation of Team-Based Learning approach. This showed that the students were having high expectations towards Team-Based Learning approach. These results reflected those of the previous studies which found that Team-Based Learning was well perceived by the Pharmacy students (Gryka et al., 2016) and nursing students in Iran (Fatemeh & Ferdos, 2016) as shown through the pre and post implementation surveys. In the Malaysian context, Team-Based Learning was positively accepted in teacher education of Malaysian universities (Arshad et al., 2015).

Furthermore, there was also no significant difference between the pre-implementation and post- implementation surveys mean scores concerning the students' perception towards Teamwork with $t(29)= -1.513$, and $p = 0.141$ after the implementation of Team-Based Learning. Nevertheless, the findings showed that teamwork in Team-Based Learning was well-perceived and accepted by the students generally based on the Pre-Implementation Survey (Overall Mean= 4.02, Std. dev= 0.416) and Post-

Implementation Survey (Overall Mean= 4.23, Std. dev= 0.636) results. The post-implementation survey findings indicated that the highest number of students' study in groups occasionally. The number of students has increased from 10 students (33.3%) to 17 students (56.7%) after the implementation of Team-Based Learning. On the other hand, the number of students who rarely study in groups has also reduced from 14 students (46.7%) to 5 students (16.7%) after the Team-Based Learning activities. The students revealed good perception towards successful interpersonal relationships within groups. These findings are strongly supported by Nagaswami et al. (2009) who were also using the same set of Evaluation of Team-Based Learning Questionnaire in their study and reported that majority of students expressed positive feelings about teamwork in Team-Based Learning. However, in this study, the students' Team Readiness Assurance Process Tests scores were significantly higher than their Individual Readiness Assurance Process Tests scores. Park, Kim, Park and Park (2015) concluded that Individual Readiness Assurance Tests were correlated with examination scores while the Team Readiness Assurance Tests were positively related to good team interpersonal skills and team efficacy.

One of the reasons why there was no significant difference between the pre-implementation and post-implementation surveys mean scores and the students' perception of Team-Based Learning and Teamwork might be due to time and human factors. The Team-Based Learning intervention period was only implemented for about nine weeks which might be insufficient to change the perception of a person. Time matters in changing the way how a person is selecting, organising, and interpreting information to make sense of the world around us (McShane & Von Glinow, 2010). Besides, there might also be counterproductive work behaviours that have the risk to directly or

indirectly harm the team. Their behaviours include abuse of others via insults and nasty comments, threats, work avoidance, and work sabotage by doing work incorrectly.

7.8 Relationship of Perception towards Team-Based Learning and Learning Outcomes

This evaluation phase intended to answer Research Question 5 as indicated below. The following are the discussions of the findings acquired from this evaluation phase of this study.

RQ5: What is the relationship between the students' perception towards Team-Based Learning and learning outcomes among university business students in a private international higher education institution?

This part of discussion attempts to review the relationship of students' perception towards Team-Based Learning and learning outcomes among university business students. The results showed that there is no significant relationship between the students' perception towards Team-Based Learning and learning outcomes among university business students. The findings are coherent with previous research findings. A study done by Woerkom and Croon in 2009 failed to show the positive relationship between Team-Based Learning and team performance. In addition, the research conducted by Razzouk in 2011 in an undergraduate educational psychology course also suggested that there was no strong evidence showing the differences between the students' examination scores and Team-Based Learning environment. Moreover, a weak positive relationship was found between the students' learning outcomes of examination scores and self-regulated Team-Based Learning activities (Whittaker, 2014).

However, Sisk (2011) reported a positive relationship between students' satisfaction level towards Team-Based Learning and their academic performance. This finding was supported by Kim et al. (2016) who viewed Team-Based Learning as a student-centred approach that is effective in enhancing students' learning outcomes through active learning in teams. Additionally, Rita et al. (2016) uncovered significant improvement in test and exam scores among the students after Team-Based Learning activities compared to the traditional lecture method. Furthermore, Frame et al. (2016) affirmed these findings by showing that students' learning outcomes had increased with Team-Based Learning. Recently, Huang and Lin (2017) also reported a positive relationship between learning outcomes and effectiveness of Team-Based Learning approach. Nonetheless, the findings regarding the perception towards Team-Based Learning might be affected by personal biases or other internal and external factors (Tweddell et al., 2016).

It was proven that the team tests' scores were better than the individual tests' scores. This finding is aligned with the Vygotsky's Theory regarding Zone of Proximal Development (ZPD) and More Knowledgeable Other (MKO). ZPD is the range of tasks that a student can perform in teams better with other team members' help and guidance (Leatherbury, 2016). On the other hand, MKO is someone, not necessarily a teacher, with a higher order of thinking ability to perform a task and can be able to understand a concept better (Leatherbury, 2016). It specifies that students can complete their tasks better with another members' assistance (Omrod, 2003). Students can improve their performance through regular feedback from their teachers (Schunk, 2008). Indeed, Vygotsky posited that knowledge could be constructed through social interactions.

The findings of this study indicated that the high achieving students might not necessarily have good perception towards Team-Based Learning and vice versa. This matter is because high-achieving students are used to active learning and are self-motivated to learning (Nagaswami, 2009). In this study, 23.3% of the respondents are Accounting major students who are academically excellence. In short, their learning outcomes are not necessarily due to their satisfaction level and perception towards the Team-Based Learning approach. Outcomes-based teaching and learning (OBTL) are one of the practical and convenient ways to maintain education standard and to improve teaching in which standards are stated up front with clear, aligned intended learning outcomes, teaching and learning activities, and assessment tasks (Biggs & Tang, 2011). Additionally, these findings are also coherent to the social loafing problem that occurs when a student usually perform at a lower level by employing less effort when working in teams than when working alone. The social loafing issue would be reduced when the tasks are more interesting, each team members' performance are measured individually, the team members value the team membership, and by reducing the team size (McShane & Von Glinow, 2010).

The new curriculum of this university has introduced few new Bachelor of Business subjects including this unit which is non-exam based to encourage self-reflection and to refine the students' critical and analytical skills to solve related business problems. Students are required to apply their business knowledge to a real-world context by developing a compelling presentation, communication skills, and case solutions that are ethical and sustainable. The new curriculum is applying constructivism learning approach by allowing the business students to redevelop the experiences learnt with their idea to turn them into new knowledge. The students are required to seek out different alternatives and evaluate the possible answers systematically to answer the questions asked in the tests

and the team application exercises. This process can create a level of comfort and confidence in their judgment. Consequently, answer-until-correct assessment method was utilised in the tests to so that the students can be able to increase exam scores and improve their perceptions of the quality of team interaction. Inopportunely, based on the observation by the researcher and instructor respondents, the university students are youth who are spontaneous in decision-making. They comfortably make decisions on the spot and are guided by intuition and what feels right.

Eventually, Team-Based Learning approach is more likely to cultivate higher-order cognitive skills among the students by designing and developing the Team-Based Learning test questions based on both lower-order and higher-order thinking skills (Macke et al., 2015). This is crucial to overcome the instructional issues identified in needs analysis phase in which the students were lack of critical thinking and higher-order thinking. Huang and Lin (2017) who emphasised the effectiveness of Team-Based Learning in enhancing higher-order thinking among business students and the strategies to improve business students' learning with the implementation of Team-Based Learning support this fact. However, 80% of the assessment only requires the students to apply their lower-order thinking skills. Obviously, the respondents scored better in the team application exercises compared to the Readiness Assurance Process Tests. The questions proposed in the team application exercises were designed and developed based on the higher order of Revised Bloom's Taxonomy. Ultimately, it is believed that Team-Based Learning tends to improve higher-order thinking better than lower-order thinking skills. This belief is consistent with the theoretical foundation of Team-Based Learning models. Tweddell et al. (2016) concluded that Team-Based Learning could improve students' higher-order thinking and application skills to enrich their employability and competitive advantage in the future workplace.

7.9 Implications of the Study

This section confers the implication drawn from the discussion of the findings of the study. There are three types of implications in this study, namely Theoretical Implication, Practical Implication, and Methodological Implication. Theoretical implication indicates the findings regarding the theories and concepts used in this research. Practical implication denotes the influence of this research on the stakeholders of the study, particularly the business students and instructors in Malaysia. Methodological implication refers to the impact of the quantitative and qualitative findings to future and current researchers.

7.9.1 Theoretical Implication

Firstly, this study contributed to the limited literature on theoretical aspects of Team-Based Learning, particularly for business education in Malaysia context. This study contributed to increasing clarification of conceptualisation of Team-Based Learning. It confirmed the Team-Based Learning models as proposed by Whitley et al. (2015), Michaelsen and Sweet (2011), and Huang and Lin (2017). The primary purpose of this study is to investigate how does Team-Based Learning take place in university to affect business students' perception and learning outcomes by incorporating students' and instructors' practitioners' suggestions to enhance their learning. This study will also determine methods and strategies to improve Team-Based Learning in higher education. The feedback gathered from the students and instructors is crucial to ensure the practice of Team-Based Learning strategy in business education. This study would be beneficial to higher education at large to confirm that Team-Based Learning would provide a new tool for educators to be used in their instructional design and development that many units of study and assessments can be built-in.

This research would also be beneficial to the business students in higher education. They would be motivated to engage in using Team-Based Learning and also created a new learning experience for the students in higher education. This is because it has been empirically and theoretically proven that Team-Based Learning could improve students' learning outcomes and team skills. Team-Based Learning would increase the competitive advantage of these graduates when they are working in their future workplace. This research added contribution in proving that Team-Based Learning approach can be incorporated into the the nine elements of KEMP's Model include identify instructional problems, determine learners' characteristics, perform task analysis, identify instructional objectives, content sequencing, design the instructional strategies, design and develop the instructional message, instructional delivery, and evaluation instruments. The nine elements can be further categorised into four phases, which consists of needs analysis phase, design and development phase, implementation phase, and evaluation phase (Morrison et al., 2004).

This study confirmed that students' use of Team-Based Learning could be optimised based on the discussions and suggestions as conferred in this chapter. This study has ascertained that decent use of Team-Based Learning can assist business students and instructors in higher education to reduce instructional issues. It is essential to have an instructional approach that can be able to improve the students' higher-order thinking, application skills, and learning skills include communication skills, teamwork, lifelong learning, entrepreneurship skills, ethics and professional moral skills, and leadership skills.

7.9.2 Practical Implication

This study contributes to the practice of how Malaysia's universities could encourage and provide a conducive learning environment for Team-Based Learning among students. The suggested methods and strategies to improve Team-Based Learning approach in the evaluation phase should be considered by the future researchers to be incorporated in the framework of Team-Based Learning and KEMP's instructional design model. It was suggested that Cognitive Load Theory and e-tivities should also be incorporated in Team-Based Learning activities. This research provided insight for business instructors on the practice of Team-Based Learning approach in business education. Therefore, university management and Malaysia Higher Education Department should support lecturers' interest in the related professional field and cultivate continuous Team-Based Learning approach in the university environment. This approach will not only ensure better academic achievement but will also enrich the students' learning interest to study in teams with their classmates. This method would be a cost-effective way of improving students' involvement in higher education.

Furthermore, this study also affirmed the instructors' awareness of the essential role of assessment in a well-planned curriculum design. An effective assessment system includes pre-assessments, on-going formative assessment, and summative assessments. Summative evaluation is important to determine if the objectives of the course have been achieved. On the other hand, formative evaluation is to give feedback for course improvement, modification and future planning. As educators, evaluation and reflection should be done continuously to make sure that the learning objectives achieved, and they teach according to how their students learn. As an international offshore campus, this university should practice a world-cultures assessment and learning activities by expanding their

views of social interaction across local, state, and national boundaries. Therefore, it is crucial for higher education instructors and curriculum developers to concern the diversities of their institutions by addressing both national and world needs in their class activities and assessment by considering the students' instructional needs. Both the students and instructors' voice should be taken into consideration by involving them in the needs analysis, design, development, implementation and evaluation processes of instructional design.

7.9.3 Methodological Implication

This research has made a methodological contribution to the research of Team-Based Learning in Malaysia. This study contributes to the limited literature on the usage of Team-Based Learning approach in learning, especially in the Malaysian context, particularly on the university level's business subject and Asian context in general. This study contributed to increasing clarification of the importance of Team-Based Learning in higher education to ensure that our Malaysian students benefit from better classroom teaching and learning processes. This study could be one of the literature of references for educators who are interested in studying teaching and learning methods and strategies.

The design-based research methodology used to collect data for this research could support previous research in the area of Team-Based Learning education. Besides, both quantitative and qualitative approaches are used in this study. The methods could enhance the existing method regarding the study and guide future research on how the data is collected and give a better understanding to the readers regarding the findings of the study. Mixed methods design-based research was carried out in this study to determine the students' perception and its effects in higher education. Such analysis method was not commonly used, especially in the Malaysian context. The validity and reliability of this

study are strengthened by the vast amount of data collected at different phases from both students and instructors.

7.10 Recommendations for Future Research

There were few limitations of this study as discussed in Chapter 1. The first constraint was that this study was limited to only one cohort of Bachelor of Business courses students in one particular university, with a minimum number of 30 students, who were enrolling for HRM20016 Dynamics of Diversity in Organisations unit in Semester 1, 2018. Refinement will be done in the future iterations of postgraduate's research. In future studies, more classes of students should be selected as the sample. Larger sample size would increase the validity and reliability of the findings. It might be necessary to include the students from our local public universities or even to compare the findings with off-campus and online students. Recently, most of the universities and colleges are slowly moving towards online and blended teaching and learning approach.

Secondly, this study is design-based research that involves only respondents from a business degree in which the findings may only be confined to units of study with similar curriculum design. Generalizability of the findings on different courses will require further investigation in future. It is suggested to conduct quasi-experimental research by involving both experimental and control groups of students as a comparison. Quasi-experimental research is a desirable methodology to determine the causal relationship between variables through the manipulation of an intervention or treatment in which the validity threats are managed carefully. On top of this, time series design is also recommended to be incorporated in the experimental research to provide insights about the students' perception changes on Team-Based Learning and Teamwork over time that cannot

be observed using a simple pre-implementation survey and post-implementation survey evaluation.

Finally, it is also suggested to study the effect of Team-Based Learning on the students' learning outcome over a longer term, say, two semesters. In conjunction with effects on students' learning outcomes, the role of team leaders to promote good team-work among the members in Team-Based Learning could also be an interesting dimension to be investigated in the future study. Some of the respondents in this study viewed the team leader as one of the constraints of Team-Based Learning. Leader plays a crucial role in influencing and motivating the team members to achieve their assessment objectives. Leadership is one of the most researched with enormous literature. However, it is also one of the most complex and complicated topics in education (McShane & Von Glinow, 2010). Eventually, future research should also examine the whether there is any significant relationship between technology-assisted Team-Based Learning approach and students' performance when compared to traditional Team-Based Learning activities. Any other dimensions of individual and organisational factors that could influence Team-Based Learning should also be investigated in the future study,

7.11 Conclusions

In this study, multi-methods design-based research (DBR) was carried out among the business students in a private international higher education institution in Malaysia with the primary purpose to improve the Team-Based Learning approach in three phases. The first phase of the study was the needs analysis phase where a focus group interview and one-to-one semi-structured interviews were conducted with both the student and instructor respondents. The needs analysis phase aimed to confirm the needs to implement Team-Based Learning by investigating the instructional issues faced by the business

students enrolled in a business course in a private international higher education institution.

The second and third phases of the research were the design and development, phase. Findings were gathered by conducting one-to-one semi-structured interviews with two expert instructor respondents before the implementation of the Team-Based Learning activities. The main purpose of the interviews was to validate and confirm the developed Team-based Learning activities module which serves as guidance for directions on Team-Based Learning activities to the instructor.

The third phase of the study was the implementation and the evaluation phases. The fundamental purpose of these phases was to determine possible methods and strategies to further improve and enhance Team-Based Learning among business students in a private international higher education institution. The information was collected via an online survey worksheet on Google Forms Application. The methods and strategies to improve the Team-Based Learning activities in business education will be implemented in the future iterations of postgraduates' research.

An Evaluation of Team-Based Learning Questionnaire was conducted with 30 student respondents who were willing to participate in the survey voluntarily. A pre-implementation and post-implementation survey were used to assess whether there was a significant difference in the test scores of the students' perception towards Team-Based Learning and Teamwork after the implementation of the new learning approach. The findings were analysed using Paired Sample t-Test. In addition, the relationship between students' perception towards Team-Based Learning and their learning outcomes were also determined based on the data obtained from the questionnaire. The obtained data were analysed using Pearson Correlation Analyses.

The findings in the needs analysis phase indicated that there were four main instructional issues faced by the business students generally. These mentioned issues are teaching issue, learning issue, practical exposure issue, and personal efforts issue. The findings obtained from the design, development, and implementation phases concluded that Team-Based Learning activities could be perfected in terms of the Pre-Class Preparation, Individual Readiness Assurance Process Tests, Team Readiness Assurance Process Tests, and the Case Study Team Application Exercises. The findings obtained from the one group pre-implementation and post-implementation surveys design-based research showed that the Team-Based Learning was well-perceived by the students there was no significant difference between the pre-implementation and post-implementation surveys mean scores regarding the students' perception towards Team-Based Learning. The results also showed that there is no significant relationship between the students' perception towards Team-Based Learning and learning outcomes among university business students.

The three main implications of this study as identified in this chapter were Theoretical Implication, Practical Implication, and Methodological Implication. Theoretical implication specifies the findings regarding the theories and concepts used in this study; practical implication represents the influence of this research on Malaysian business students and instructors whereas methodological implication indicates the impact of the quantitative and qualitative design-based research findings to future and current researchers.

For future studies, it is recommended to include more classes of students as the sample to increase the validity and reliability of the findings. It was also suggested to include the students from our local public universities' students, off-campus and online

students, or even students from rural areas. Furthermore, it was proposed to conduct quasi-experimental research by involving both experimental and control groups of students to determine the underlying relationship between variables through the manipulation of an intervention or treatment. On top of this, time series design was also recommended to be incorporated in the experimental research to learn about the students' perception changes on Team-Based Learning and Teamwork over time. It was also advised to study the effect of Team-Based Learning on the students' learning outcome over a longer term. The role of team leaders to promote good teamwork among the members in Team-Based Learning could also be an interesting dimension to be investigated in the future study. Lastly, future research should also examine the relationship between technology-assisted Team-Based Learning approach and students' performance.

In conclusion, Team-Based Learning has assisted business students in higher education to improve their higher-order thinking and learning outcome. The findings showed that the Team-Based Learning approach and teamwork were well-perceived and accepted by the student's respondents. Based on the outcome of this study, it is highly recommended that the Team-Based Learning approach should be implemented in universities and colleges among business students to increase their learning quality.

REFERENCES

Abdal- Haqq, I. (1998). Constructivism in teacher education: Considerations for those who would link practice to theory. *ERIC Digest: ERIC Clearinghouse on Teaching and Teacher Education*.

Aldoobie, N. (2015). Technology integration and learning theory. *American International Journal of Contemporary Research, 5*(6), 114-118.

Anderman, E. M, & Maehr, M. L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research, 64*(2), 287-309.

Anderson, T., & Shattuck, J. (2012). Design-based research: A decade of progress in education research? *Educational Researcher, 41*(1), 16-25.

Arshad, A. S., Hawanum, H., Juridah, M. R., & Sharifah Zainab, S. A. R. (2015). Training English language pre-service teachers using a team-based learning approach. *English Language Teaching, 8*(1), 44-51.

Artz, G. M., & Jacobs, K. L. (2016). The whole is greater than the sum: An empirical analysis of the effect of team based learning on student achievement. *NACTA Journal, 60*(4), 405-411.

Baird, L. L. (1982). *The Role of Academic Ability in High-Level Accomplishment and General Success*. New York: College Entrance Examination Board.

Ballantine, J. A., Duff, A., & Larres, P. M. (2008). Accounting &business students' approaches to learning: A longitudinal study. *Journal of Accounting Education, 26*(4), 188-201.

Barclay, M. W. (2011). The impact of team-based learning's readiness assurance process on virtually isolated adults (Doctoral dissertation). Retrieved from http://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=2013&context=etd

Belfield, C. R., (2013). *Economic Principles for Education: Theory and Evidence*, Massachusetts: Edward Elgar Publishing Inc.

Biggs, J., & Tang, K. (2011). *Teaching for quality learning at University, 4th Edition.* Maidenhead: Oxford University Press.

Blaxter, L., Hughes, C., & Tight, M. (2010). *How to Research, 4th Edition.* Maidenhead: McGraw-Hill/ Open University Press.

Bleske, B. E., Remington, T. L., Wells, T. D., Klein, K. C., Guthrie, S. K., Tingen, J. M., Marshall, V. D., & Dorsch, M. P. (2016). A randomized crossover comparison of team-based learning and lecture format on learning outcomes. *American Journal of Pharmaceutical Education, 80*(7), 1-5.

Blumberg, P. (2009). Maximizing learning through course alignment and experience with different types of knowledge. *Innov High Educ, 34*, 93-103.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2*)*, 77-101.

Brualdi, A. C. (1996). *Multiple Intelligences: Gardner's Theory*. ERIC/AE Digest Series. Retrieved from http://www.springhurst.org/articles/MItheory.htm>

Brown, A. L. (1992). Design experiments: Theoretical and methodologies challenges in creating complex interventions in classroom settings. *The Journal of the Learning Sciences, 2*(2), 141-178.

Brown, C., & Taylor, C. (2016). Using design-based research to improve the lesson study approach to professional development in Camden (London). *London Review of Education, 14*(2), 4-24.

Bunn, M. D. (2001). Timeless and timely issues in distance education planning. *American Journal of Distance Education, 15*(1), 55-68.

Carta, V., Catalano, A., Ferappi, M., Lentini, G., Palluotto, F., Tortorella, P., & Tortorella, V. (2009). An update of multiple-choice questions (MCQs): the sequential multiple-choice questions (SMCQs). *Pharmacy Education, 9*(1), 29-32.

Causse, C. (2010). *Living with a Hyperactive Child.* Monaco: Editions Alpen.

Cheesman, E. A., Winograd, G. R., &Wehrman, J. D. (2010). Clickers in teacher education: Student perceptions by age and gender. *Journal of Technology and Teacher Education, 18*(1), 35-55.

Chiew, W. M., & Siraj, S. (2013). Integrating internship and business simulation into the Malaysian business studies curriculum. *Malaysian Journal of Educational Management,* 1(1), 1-16.

Chong, P. Y., & Amli, H. A. M. (2013). *International Students' Learning Experiences at Private Higher Education Institutions in Malaysia.* Proceeding of the Global Summit on Education.

Cimatti, B. (2016). Definition, development, assessment of soft skills and their role for the quality of organizations and enterprises. *International Journal for Quality Research 10*(1) 97–130.

Clair, K. S., & Chihara, L. (2012). Team-Based Learning in a Statistical Literacy Class. *Journal of Statistics Education,* 20(1), 1-20.

Collaborative Learning Techniques Workshop (2010). *What is Team-Based Learning?* Centre for Advancing Teaching & Learning. Retrieved from https://www.uwlax.edu/catl/studentlearning/presentations/collaborativelearningtechniqueshandout.pdf

Collins, A., Joseph, D., & Bielaczyc, K. (2004). Design research: Theoretical and methodological issues. *Journal of the Learning Sciences, 13*(1), 15-42.

Cook, R., & Calkins, S. (2013). More than recall and opinion: using clickers to promote complex thinking. *Journal on Excellence in College Teaching, 24*(2), 51-76.

Cornell University (2017). *What is Team-Based Learning?* CTI. Retrieved from https://www.cte.cornell.edu/teaching-ideas/engaging-students/collaborative-learning.html

Cornelius, P. B. (2014). Leave lecture behind: Team-based learning strategies in Baccalaureate nursing education (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses. (Accession Order No. UMI 3632938).

Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing among Five Approaches*. Los Angelas: SAGE Publications.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches, Fourth Edition*. Lincoln: SAGE Publications.

Creswell, J. W., & Clark, V. L. P. (2007). *Designing and Conducting Mixed Methods Research*. California: SAGE Publications Inc.

Davidson, N., & Major, C. H. (2014). Boundary crossings: Cooperative learning, collaborative learning, and problem-based learning. *Journal on Excellence in College Teaching, 25*(3 & 4), 7-55.

Davis, J. R. (1976). *Teaching Strategies for the College Classroom*. University of Wisconsin- Madison: Westview Press.

Dele, D. A., Faseyi, O. M., Ogundiran, F. T., Alao, O. J., & Medavarapu, S. (2016). Importance of team based learning on the academic performance of medical students: A systematic review. *American Scientific Research Journal for Engineering, Technology and Sciences, 24*(1), 192-200.

DiSessa, A. A., & Cobb, P. (2004). Ontological innovation and the role of theory in design experiments. *The Journal of the Learning Sciences, 13*(1), 77-103.

Ernst & Young (2015). How will the GCC close the skills gap? EY. Retrieved from http://www.ey.com/publication/vwluassets/ey-gcc-education-report-how-will-the-gcc-close-the-skills-gap/$file/gcc%20education%20report%20final%20au3093.pdf

Espey, M. (2012). *Team-based learning, team composition, and team success: What really matters?* Selected Paper prepared for presentation at the Agricultural & Applied Economics Association's 2012 AAEA Annual Meeting, Seattle, Washington, August 12-14, 2012.

Fahey, S. J. (2012). Curriculum change and climate change: Inside outside pressures in higher education. *Journal of Curriculum Studies, 44*(5), 703-722.

Fatemeh, E. & Ferdos, P. (2016). Modified use of team-based learning to teach nursing documentation. *Electronic Physician, 8*(1), 1764-1769.

Farland, M. Z., Barlow, P. B., Lancaster, T. L., & Franks, A. S. (2015). Comparison of answer-until-correct and full-credit assessments in a team-based learning course. *American Journal of Pharmaceutical Education, 79*(2), 1-6.

Feng, X. Y., Xie, J. J., & Liu, Y. (2017). Using the community of inquiry framework to scaffold online tutoring. *International Review of Research in Open and Distributed Learning, 18*(2), 162-188.

Frame, T. R., Cailor, S. M., Gryka, R. J., Chen, A. M., Kiersma, M. E., & Sheppard, L. (2015). Student perceptions of team-based learning vs traditional lecture-based learning. *American Journal of Pharmaceutical Education, 79*(4), 1-11.

Frame, T. R., Gryka, R. J., Kiersma, M. E., & Todt, A. L., Cailor, S. M., & Chen, A. M. H. (2016). Student perceptions of and confidence in self-care course concepts using team-based learning. *American Journal of Pharmaceutical Education, 80*(3), 1-10.

Fraenkel, J. R., & Wallen, N. E. (1993). How to design and evaluate research in education (2nd ed.). Boston, MA: McGraw Hill.

Gagné, R. M. (1985). *The conditions of learning and theory of instruction, 4th edition.* Holt, Rinehart & Winston, New York.

Gagnon, G. W., & Collay, J. M. (2006). *Constructivist Learning Design*. California: Corwin Press.

Gay, L.R., & Diehl, P.L. (1992). *Research Methods for Business and Management.* New York: Mc. Millan Publishing Company.

Gryka, R., Kiersma, M. E., Frame, T. R., Cailor, S. M., & Chen, A. M. H. (2016). Comparison of student confidence and perceptions of biochemistry concepts using a team-based learning versus traditional lecture-based format. *Currents in Pharmacy Teaching and Learning,* 1-9.

Herrington, J. A., McKenney, S., Reeves, T. C., & Oliver, R. (2007). Design-based research and doctoral students: Guidelines for preparing a dissertation proposal. In C. Montgomerie & J. Seale (Eds.), Proceedings of EdMedia 2007: World Conference on Educational Multimedia, Hypermedia & Telecommunications (pp. 4089-4097). Chesapeake, VA: AACE.

Hill, R. (1998). What sample size is "Enough" in Internet survey research? *Interpersonal Computing and Technology, 6*(2-3), 1-10.

Hlebowitsh, P. S. (2005). *Designing the School Curriculum.* Boston: Pearson Education Inc.

Hong, K.S., Lim, C. Y. B., & Ngu, L. H. (2012). An exploratory study of clickers among students at a Malaysian tertiary institution. *Malaysian Journal of Educational Technology, 12*(2), 13-23.

Hoyos, J. E. P., & Cano, L. H. T. (2016). E-moderating and e-tivities: The implementation of a workshop to develop online teaching skills in in-service teachers. *PROFILE Issues in Teachers' Professional Development, 18*(1), 97-114.

Hrynchak, P., & Batty, H. (2012). The educational theory basis of team-based learning. *Medical Teacher, 34*(10), 796-801.

Huang, C. K., *&* *Lin*, C. Y. (2017). Flipping business education: Transformative use of team-based learning in Human Resource Management classrooms. *Educational Technology & Society, 20*(1), 323-336.

Hung, H. T. (2011). Design-based research: Designing a multimedia environment to support language learning. *Innovation in Education and Teaching International, 48*(2), 159-169.

Hwang, G. J., Sung, H. Y., Hung, C. M., Iwen, H., & Tsai, C. C. (2012). Development of a personalized education computer game based on students' learning styles. *Education Tech Research Dev, 60*, 623-638.

Jerome, C., Lee, J. A. C., & Ting, S. H. (2017). What students really need: Instructional strategies that enhance higher order thinking skills (HOTS) among UNIMAS undergraduates. *International Journal of Business and Society, 18*, 661-668.

Johnson, D. W. & Johnson, R. T. (1999). Making cooperative learning work. *Theory into Practice, 38*(2), 67-73.

Jonassen, D. H. (2013). First principles of learning. In J. M. Spector, B. B. Lockee, S. E. Smaldino, & M. C. Herring (Eds.), *Learning, problem solving and mindtools: Essays in honor of David. H. Jonassen.* New York: Routledge.

Jugder, N. (2016). *The thematic analysis of interview data: An approach used to examine the influence of the market on curricular provision in Mongolian higher education institutions.* University of Leeds. Retrieved from http://hpp.education.leeds.ac.uk/wp-content/uploads/sites/131/2016/02/HPP2016-3-Jugder.pdf

Kember, D., Amber, H., & Celine, H. (2008). The importance of establishing relevance in motivating student learning. *Active Learning in Higher Education, 9*(3), 249-263.

Khaled, A., & Maysoon, F. S. (2018). A gap analysis of business students' skills in the 21st century: A case study of Qatar. *Academic of Educational Leadership Journal, 22*(1), 1-22.

Kim, H. R., Song, Y. S., Lindquist, R., & Kang, H. Y. (2016). Effects of team-based learning on problem-solving, knowledge and clinical performance of Korean nursing students. *Teaching and Teacher Education, 56*, 115-126.

Kim, P., Suh, E., & Song, D. (2015). Development of a design-based learning curriculum through design-based research for a technology-enabled science classroom. *Education Tech Research Dev, 63*, 575-602.

Kueh, K. (2013). *Working effectively on team-based assignments in class.* University of Technology, Sarawak Campus. Retrieved from https://www.swinburne.edu.my/campus-beyond/working-effectively-on-team-based-assignments-in-class.php

Lang, F. R., Wagner, J., Wrzus, C., & Neyer, F. J. (2013). *Personal effort in social relationships across adulthood.* American Psychological Association. Retrieved from https://pdfs.semanticscholar.org/3fbd/69ee51a770f475b49fb4b86064dcbde9ec10.pdf

Larkin, T. L. & Belson, S. I. (2005). Blackboard technologies: a vehicle to promote student motivation and learning in physics. *Journal of STEM Education, 6*(1/2), 14-27.

Lassnigg, L. (2015). Competence-based education and educational effectiveness: A critical review of the research literature on outcome-oriented policy making in education. Retrieved from http://www.ihs.ac.at/publications/soc/rs111.pdf

Leatherbury, Z. D. (2016). *Teachers' experiences and perspectives of team-based learning strategies in preschool classroom* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI No. 10134323).

Lesch, S. (1995). Learning outcomes. Retrieved from http://www.google.com.my/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&ved=0CF8QFjAF&url=http%3A%2F%2Fwww.lamission.edu%2Fslo%2Fdocs%2FLearning%2520Outcomes%2520and%2520samples.doc&ei=aOR7UamUBcnhrAfswIEY&usg=AFQjCNGWWHrA6OB5MqVVuPB2DRFLmoEG1Q&sig2=57Kf70aTEaB5Tov1R8GCaA&bvm=bv.45645796,d.bmk

Lin, H. F., & Dwyer, F. M. (2010). The effect of static and animated visualization: A perspective of instructional effectiveness and efficiency. *Springer Education Tech Research Dev*, 58, 155-174.

Lizer, T. L. (2013). *The impact of the curriculum change in the teaching and learning of science: A case study in under-resourced schools in Vhembe District.* Master Dissertation. University of South Africa.

Lopez-Navarro, M., & Segarra-Cipres, M. (2015). Social issues in business education: A study of students' attitudes. *Journal of Education for Business, 90*(6), 314-321.

Macke, C., Taylor, J. A., Taylor, J. E., Tapp, K., & Canfield, J. (2015). Social work students' perceptions of team-based learning. *Journal of Teaching in Social Work, 35*, 454-470.

Majgaard, G. (2011). How design-based research and action research contribute to the development of a new design for learning. *Designs for Learning, 4*(2), 8-27.

Ministry of Finance Malaysia (2017). *2018 Budget.* Retrieved from http://www.treasury.gov.my/pdf/budget/speech/bs18.pdf

Ministry of Higher Education Malaysia (2015). Malaysia Education Development Plan 2015-2025 (Higher Education). Retrieved from http://www2.ptsb.edu.my/images/1.%20Pelan%20Pembangunan%20Pendidikan%20Malaysia%202015-2025%20(Pendidikan%20Tinggi).pdf

Malaysia University Portal (2018). List of private universities. Retrieved from http://www.malaysiauniversity.net/private-universities/

Marquez, L. M. T., Llinas, J. G., & Macias, F. S. (2017). Collaborative learning: Use of the jigsaw techniques in mapping concepts of Physics. *Problem of Education in the 21st Century, 75*(1), 92-101.

Mattoon, R. H. (2006). Can higher education foster economic growth? *The Federal Reserve Bank of Chicago.* Retrieved from https://webcache.googleusercontent.com/search?q=cache:PLESr0eMIXUJ:https://www.chicagofed.org/~/media/publications/chicago-fed-letter/2006/cflaugust2006-229-pdf.pdf+&cd=2&hl=en&ct=clnk&client=firefox-b-ab

Mayer, R. E. (2001). Cognitive Theory of Multimedia Learning. In *Multimedia Learning* (pp.31-48). New York: Cambridge University Press.

Mayer, R. E., & Moreno, R. (2002). *Aids to computer-based multimedia learning. Learning and Instruction, 12*(1), 107-119.

McLeod, S. (2007). Lev Vygotsky, Simply Psychology, 7.

McLeod, S. (2010). *Kolb-Learning Styles*, Simply Psychology. Retrieved from http://www.simplypsychology.org/learning-kolb.html

McShane, S. & Von Glinow, M. (2010). *Organisational Behaviour: Emerging Knowledge, Global Insights* (3rd ed., Asia-Pacific). Sydney: McGraw-Hill.

McShane, S., Olekalns, M., & Travaglione, T. (2013). *Organisational Behaviour: Emerging Knowledge, Global Insights* (4th ed., Asia-Pacific). Sydney: McGraw-Hill.

McQueen, R., & Knussen, C. (2002). *Research methods for social science: An introduction.* Harlow, Essex: Pearson Educational Limited.

Meyers, N. M., & Nulty, D. D. (2009). How to use (five) curriculum design principles to align authentic learning environments, assessments, students' approaches to thinking and learning outcomes? *Assessment & Evaluation in Higher Education, 34*(5), 565-577.

Michaelsen, L. K. (2008). *Team-based learning for health professional education: A guide to using small groups for improving learning.* Sterling, VA: Stylus.

Michaelsen, L. K., Davidson, N., & Major, C. H. (2014). Team-based learning practices and principles in comparison with cooperative learning and problem-based learning. *Journal on Excellence in College Teaching, 25*(3 & 4), 57-84.

Michaelsen, L. K., Knight, A. B., & Fink, L. D. (2002). *Team-based learning: A transformative use of small groups*. Greenwood Publishing Group.

Michaelsen, L. K., & Sweet, M. (2008). The essential elements of team-based learning. *New Directions for Teaching and Learning, 116*, 7-27.

Michaelsen, L. K., & Sweet, M. (2011). Team-based learning. *New Directions for Teaching and Learning, 128*, 41-51.

Michaelsen, L. K., Sweet, M., & Parmelee, D. X. (2008). *Team-based learning: A transformative use of small groups in college teaching*. Sterling, VA: Stylus.

Michaelsen, L. K., Sweet, M., & Parmalee, D. X. (2009). The essential elements of team-based learning. Adapted from Chapter 1 of Michaelsen, L., Sweet, M. & Parmalee, D. (2009) *Team-Based Learning: Small Group Learning's Next Big Step*. *New Directions in Teaching and Learning*, 7-27.

Millis, B. J., & Cottell, P. G. (1998). *Cooperative learning for higher education faculty*. Phoenix: Oryx Press.

Ming, T. S., & Alias, A. (2007). Investigating readiness for autonomy: A comparison of Malaysian ESL undergraduates of three public universities. *Reflection on ELT, 6*(1), 1-18.

Ministry of Education Malaysia (2013). Malaysia Education Blueprint 2013-2025 (Preschool to Post-Secondary Education). Retrieved from https://www.moe.gov.my/images/dasar-kpm/articlefile_file_003108.pdf

Morgan, A. M. (2013). 'Proof of concept': Beginning to use design-based research to improve science literacies for middle year's learners. *Australian Journal of Language and Literacy, 36*(1), 3-16.

Morrison, G. R., Ross, S. M., & Kemp, J. E. (2004). *Designing effective instruction, 4th edition.* Hoboken, NJ: John Wiley and Sons Inc.

Morrison, G. R., Ross, S. M., & Kemp, J. E. (2007). *Designing effective instruction, 5th edition.* Hoboken, NJ: John Wiley and Sons Inc.

Mosaku, M. O., & Ghafar, M. N. (2010). Persistency in Malaysian Higher Education, EDUPRESS 2010, 27-28 Okt 2010.

Nagaswami, S. V., Defouw, D. O., & Compton, S. (2009). A survey of student perceptions of team-based learning in anatomy curriculum: Favourable views unrelated to grades. *AnatSciEduc, 2*, 150-155.

National Graduate Employability Blueprint 2012-2017 (2012). *Ministry of Higher Education Malaysia*. Retrieved from https://www.scribd.com/document/228579238/National-Graduate-Employability-Blueprint-2012-2017

Obizoba C. (2015). Instructional design models- Framework for innovative teaching and learning methodologies. *International Journal of Higher Education, 2*(1), 40-51.

Omrod, J. E. (2003). *Educational Psychology: Developing learners.* Columbus, OH: Merill Prentice Hall.

Omrod, J. E. (2014). *Educational Psychology: Developing learners, 8th edition.* London: Pearson Education Limited.

Ornstein, A. C.; & Hunkins, F. P. (2009). *Curriculum: Foundations, Principles, and Issues, Fifth Edition.* USA: Allyn & Bacon.

Ortenblas, A., Koris, R., Farquharson, M., & Hsu, S. W. (2013). Business School Output: A conceptualization of business school graduates. *The International Journal of Management Education, 11*, 85-92.

Park, H. R., Kim, C. J., Park, J. W., & Park, E. (2015). Effect of team-based learning on perceived teamwork and academic performance in a health assessment subject. *Collegian, 22*(3), 299-305.

Parker, P., & Quinsee, S. (2012). Facilitating institutional curriculum change in higher education. *The International Journal of Learning, 18*(5), 49-60.

Parmelee, D. X., & Michaelsen, L. K. (2010). Twelve tips for doing effective team-based learning (TBL). *Medical Teacher, 32*, 118-122. doi: 10.3109/01421590903548562

Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods, 3rd Edition*. Thousand Oaks, CA: Sage Publications.

Pauleen, D. J., Marshal, S., & Egort, I. (2004). ICT supported team-based experiential learning: classroom perspectives. *Education & Training, 46*(2), 90-99.

Pitler, H., Hubbell, E. R., & Kuhn, M. (2012). *Using Technology with Classroom Instruction that Works, 2nd Edition*. USA: ASCD & McRel.

Pool, J., & Laubscher, D. (2016). Design-based research: Is this a suitable methodology for short-term project? *Education Media International, 53*(1), 42-52.

Popovici, A., & Mironov, C. (2015). Students' perception on using e-learning technology. Procedia Social and Behavioral Sciences. 180, 1514-1519 (2015).

Powell, S., Straub, C., Rodriguez, J., & VanHorn, B. (2011). Using clickers in large college psychology classes: Academic achievement and perceptions. *Journal of the Scholarship of Teaching and Learning, 11*(4), 1-11.

Rathner, J. A., & Byrne, G. (2014). The use of team-based, guided inquiry learning to overcome educational disadvantages in learning human physiology: A structural equation model. *Advances in Physiology Education, 38*(3), 221-228.

Reeves, T. C., Herrington, J., & Oliver, R. (2005). Design research: A socially responsible approach to instructional technology research in higher education. *Journal of Computing in Higher Education, 16*(96), 97-116.

Remington, T. L., Bleske, B. E., Bartholomew, T., Dorsch, M. P., Guthrie, S. K., Klein, K. C., Tingen, J. M., & Wells, T. D. (2017). Qualitative Analysis of Student Perceptions Comparing Team-based Learning and Traditional Lecture in a Pharmacotherapeutics Course. *American Journal of Pharmaceutical Education, 81*(3), 1-9.

Rena, R. (2010). *Emerging Trends of Higher Education in Developing Countries.*Windbook, Namibia: Namibia University Publications.

Rita, R., Neda, M., & Nasrin, S. (2016). Team-based learning: A new approach toward improving education. *ActaMedicaIranica, 54*(10), 679-683.

River, J., Currie, J., Crawford, T., Betihavas, V., & Randall, S. (2016). A systematic review examining the effectiveness of blending technology with team-based learning. *NurseEducation Today, 45*, 185-192.

Roscoe, J. T. (1975). *Fundamental Research Statistics for the Behavioral Sciences*. New York: Holt, Rinehart and Winston.

Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods, 15*(1), 85-109.

Salmon, G. (2011). *E-moderating: The key to teaching and learning online, 3rd Edition.* New York: Routledge.

Salmon, G. (2013). *E-tivities: The key to active online learning, 2nd Edition.* London and New York: Routledge.

Schmid, E. C. (2008). Potential pedagogical benefits and drawbacks of multimedia use in the English Language classroom equipped with interactive whiteboard technology. *Computers and Education, 51*, 1553-1568.

Schunk, D. H. (2008). *Learning theories: An educational perspective, 5th Edition*. New Jersey: John Wiley & Sons, Inc.

Sekaran, U. (2007). *Research methods for business: A skill building approaches, 4th Edition*. New Delhi: John Wiley & Sons, Inc.

Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill building approaches, 5h Edition*. West Sussex, UK: John Wiley & Sons Ltd.

Shavelson, R. J., & Phillips, D. C. Towne, L., & Feuer, M. J. (2003). On the science of education design studies. *Educational Researcher, 32*(1), 25-28.

Siko, J. P. (2012). *Changing the way we build games: A design-based research study examining the implementation of homemade powerpoint games in the classroom* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No.UMI 3509088).

Sinclair, M. (2007). A guide to understand theoretical and conceptual frameworks. *Evidence Based Midwifery, 5*(2), 39.

Sisk, R. J. (2011). Team-based learning: Systematic research review. *Journal of Nursing Education, 50*(12), 665-669.

Slavin, R. E. (2010). Cooperative learning: What makes group-work? *The Nature of Learning,* 161-178.

Stagg, A., & Lane, M. (2010). Using clickers to support information literacy skills development and instruction in first-year business students. *Journal of Information Technology Education, Research, 9*(1), 197-215.

Stone, R. J. (2011). *Human Resource Management, 7th Edition*. Australia: John Wiley & Sons.

Summerville, J., & Reid-Griffin, A. (2008). Technology integration and instructional design. *TechTrends, 52*(5), 45-51.

Swart, A. J. (2010). Evaluation of final examination papers in engineering: A case study using Bloom's Taxonomy. *IEEE Trans Education, 53*(2), 257-264.

Team-Based Learning Collaborative (2017). *What is TBL?* TBLC. Retrieved from http://www.teambasedlearning.org/definition/

Teddlie, C., & Tashakkori, A. (2009). *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioural Sciences.* Thousand Oaks, CA: SAGE.

Tenth Malaysia Plan, 2011-2015. (2010). *New Straits Time*, Friday, June 11, 2010.

Thang, S. M., & Azarina, A. (2007). Investigating readiness for autonomy: a comparison of Malaysian ESL undergraduates of three public universities. *Reflections on English Language Teaching Journal, 6* (1), 1- 18.

The American Heritage Dictionary of the English Language, Fourth Edition (2000). Houghton Mifflin Company.

Thein, A. H., Barbas, P., Carnevali, C., Fox, A., Mahoney, A., & Vensel, S. (2012). The affordances of design-based research for studying multicultural literature instruction: Reflections and insights from a teacher-researcher collaboration. *English Teaching: Practice and Critique, 11*(1), 121-135.

Tinnesz, C. G., Ahuna, K. H., & Kiener, M. (2006). Toward college success: Internalizing active and dynamic strategies. *College Teaching, 54*, 302-306.

Tsui, A. B. M. (1995). Introducing Classroom Interaction. London: Penguin.

Tuckman, B. (1965). Bruce Tuckman's Team Development Model. AURORA. Retrieved from https://www.lfhe.ac.uk/download.cfm/docid/3C6230CF-61E8-4C5E-9A0C1C81DCDEDCA2

Tudge, J. R. H., & Scrimsher, S. (2003). *Lev S. Vygotsky on education: A cultural-historical, interpersonal, and individual approach to development.* New Jersey, Erlbaum.

Tweddell, S., Clark, D., & Nelson, M. (2016). Team-based learning in pharmacy: The faculty experience. *Currents in Pharmacy Teaching and Learning, 8*, 7-17.

Umoru, T. A. (2012). Barriers to the use of information and communication technologies in teaching and learning business education. *American Journal of Business Education, 5*(5), 575-580.

Wang, F, & Hannafin, M. J. (2005). Design-based research and technology-enhanced learning environments. *Educational Technology Research and Development, 53(*4), 5-23.

Whitley, H. P., Bell, E., Eng, M., Fuentes, D. G., Helms, K. L., Maki, E. D., & Vyas, D. (2015). Practical team-based learning from planning to implementation. *American Journal of Pharmaceutical Education, 79*(10), 1-12.

Whittaker, A. A. (2014). Team-based versus traditional learning in a blended learning environment: Effect on self- regulated outcomes of nursing students (Doctoral dissertation). Retrieved from http://www.csm.edu/sites/default/files/Whittaker.pdf

Wozniak, H., Pizzica, J., & Mahony, M. J. (2012). Design-based research principles for student orientation to online study: Capturing the lessons learnt. *Australasian Journal of Educational Technology, 28*(5), 896-911.

Woerkom, M. V., & Croon, M. (2009). The relationships between team learning activities and team performance. *Personnel Review, 38(*5), 560-577.

Yosef, J. (2009). Building a conceptual framework: Philosophy, definitions, and procedure. *International Journal of Qualitative Methods, 8(*4), 49-62.

Zimmerman, B. J. & Martinez-Pons, M. (1986). Development of a structured interview for assessing student use of self-regulated learning strategies. *American Educational Research Journal, 23*, 614-628.

APPENDIX A

President
Swinburne University of Technology
Sarawak Campus
Jalan Simpang Tiga
93350 Kuching Sarawak
Malaysia.

Date: 23 Feb 2018

Dear Sir / Madam,

Letter of Confirmation from Open University Malaysia
Ki Yen Ping, Doctor of Education Candidate

Greetings from Open University Malaysia!

This is to certify that Ki Yen Ping is a student of Open University Malaysia. She has successfully defended her Research Proposal for the degree of Doctor of Education and is now ready for data collection as a requirement for her dissertation.

The title of her research is:

"Design of Team-Based Learning Strategies for Business Education in a Private International Higher Education Institution in Sarawak"

She is in the final stage of candidacy which requires her to collect data for both the pilot study and the actual study.

We hope that Swinburne University would be able to facilitate this endeavour.

Thank you.

Yours sincerely,

(DR. SOON SENG THAH)
Programme Director
Education & Social Science Cluster
Open University Malaysia

Open University Malaysia, Jalan Tun Ismail, 50480 Kuala Lumpur. Tel: 603-2773 2002
Fax: 603-26978937 Email: enquiries@oum.edu.my www.oum.edu.my

APPENDIX B

Team-Based Learning:
A Design-Based Research for Business Education in a Private University in Sarawak

You are invited to participate in a survey of Team-Based Learning (TBL) for the research project to study the implementation of TBL in your university.

The main purpose of the study is to identify the effects of Team-Based Learning as teaching and learning tool and how it takes place in university to improve business students' learning outcomes and their perception on TBL. The findings from this study can be used to further improve the quality of teaching for the benefits of present and future students.

You will be assured of complete confidentiality and all the responses will be recorded anonymously solely for the purpose of achieving the objectives of this study. Your participation in this survey is necessary as your opinion in this questionnaire will be significant for this research. This survey will take you only approximately 5 minutes to complete.

Participation in this survey is voluntary. By completing and submitting this questionnaire, you are indicating your consent to participate in this survey.

Thank you for your time. Your participation is highly appreciated.

Researcher: Ki Yen Ping

Section A: General Information

Please indicate your response with a tick (✓) in the box provided.

1. What is your current carry mark for this unit?

71 – 75	
66 – 70	
61 – 65	
56 – 60	
51 – 55	
46 – 50	
41 – 45	
36 – 40	
31 – 35	
Below 31	

2. How frequently do you study in groups?

Always	
Frequently	
Occasionally	
Rarely	
Never	

Section B: Perceptions on Team-Based Learning (TBL)

Circle the number for each phrase that best describes the extent to which you agree with the following statements about TBL: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. Please respond to all the statements.

1. TBL helped me to increase my understanding of the course learning materials.

   1 2 3 4 5

2. I have read the required readings before I attend the lecture.

   1 2 3 4 5

3. I learned useful additional information during the TBL sessions.

   1 2 3 4 5

4. TBL helped me prepare for course examinations and assignments.

   1 2 3 4 5

5. I paid full attention most of the time during the TBL sessions.

   1 2 3 4 5

6. The TBL method was helpful in developing my information synthesizing skills.

   1 2 3 4 5

7. Individual Readiness Assurance Tests (I-RAT) were useful learning activities.

   1 2 3 4 5

8. I generally well prepared for the I-RAT.

   1 2 3 4 5

9. The Team Readiness Assurance Tests (T-RAT) discussions allowed me to correct my mistakes and improve understanding of the course concepts.

1 2 3 4 5

10. I prefer a TBL method over a traditional lecture method.

1 2 3 4 5

Section C: Perceptions on Teamwork in TBL

Circle the number for each phrase that best describes the extent to which you agree with the following statements about TBL: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. Please respond to all the statements.

1. Team discussions in the TBL learning were useful learning activities.

1 2 3 4 5

2. Solving problems in a team is an effective way to learn.

1 2 3 4 5

3. I learn better from small group discussion than lecture presentation.

1 2 3 4 5

4. I have a positive attitude about working with my team members.

1 2 3 4 5

5. The ability to collaborate with my team members is necessary if I am to be successful in my learning.

1 2 3 4 5

6. Solving problems in a group is an effective way to practice what I have learned.

1 2 3 4 5

7. My team members worked well together.

1 2 3 4 5

8. I contributed meaningfully to the TBL discussions.

1 2 3 4 5

9. Most students were attentive and committed during the TBL sessions.

1 2 3 4 5

10. There was mutual respect for other team members' viewpoints during the team discussion process.

1 2 3 4 5

--- End of the Questions ---

APPENDIX C

Interview Protocol

Title of Dissertation:

Team-Based Learning:
A Design-Based Research for Business Education in a Private University in Sarawak

Start of Interview	
End of Interview	
Date	
Place	
Name of Interviewer	
Name of Interviewee	
(Acceptance of being interview) Signature of Interviewee	

Thank you for agreeing and volunteering to participate in this research study. The main purpose of the study is to identify the effects of Team-Based Learning (TBL) as teaching and learning tool and how it takes place in university to improve business students' learning outcomes and their perception on TBL. The findings from this study can be used to further improve the quality of teaching for the benefits of present and future students.

I will be asking you a series of questions aimed at understanding your experience with Team-Based Learning approach. I wish to remind you that everything we discussed is completely confidential. You will be assured of complete confidentiality and all the responses will be recorded anonymously solely for the purpose of achieving the objectives of this study.

With your permission, this interview will be digitally recorded using audio recording for the purpose of transcribing and analyzing the data for use in my dissertation. You can stop the interview at any time for any reason.

Note: In order to contextualise the overall data, it is therefore necessary to pose relevant demographic questions during the interview.

Introductory: Team-Based Learning is described as a learner-centered approach that is effective to boost students' knowledge, learning outcomes, problem solving, and critical thinking abilities by promoting active learning in teams (Kim, Song, Lindquist & Kang, 2016).

Before we proceed to the actual interview, please introduce yourself by stating your age, year of study and course of study in this university.

Interview Purpose: To examine the methods and strategies to improve Team-Based Learning in higher education

Probe Question:

1. What is your thought about team-based learning (TBL)?

Key Questions:

- What are the limitations that the TBL process presented during the practice?
- What are the strategies or methods suggested by you to improve the limitations of TBL that you mentioned previously?

Follow-up Question:

Is there anything you would like to add that I may not have asked, and you feel it is important for me to know?

Wrapping up interview:

Thank you for your willingness to participate in my research. I learned a great deal and appreciated your honest responses. You will be assured of the confidentiality of your responses.

------ END OF THE INTERVIEW ------

APPENDIX D:

RESPONDENT CONSENT FORM

Name of Researcher, Faculty, Department, Telephone and Email:

Ki Yen Ping, Faculty of Education and Language, 013-8387221, yenping@oum.edu.my

Lecturer:

Dr. Dorothy DeWitt, Faculty of Education and Language, Kuala Lumpur

Title of Project:

Design of Team-Based Learning Strategies for Business education in a private international higher education institution in Sarawak.

This Consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about anything mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The Open University of Malaysia has approved this research study as part of the requirement for Doctor of Education (EdD).

Purpose of the Study

You are being invited to participate in a research study regarding team-based learning among business students in this university.

Specifically, this study is aimed at studying:

i. the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students and instructors' perspectives.

ii. the elements to be incorporated in the development of the Team-Based Learning activities for business education in a private international higher education according to experts' opinion.

iii. the methods and strategies to improve Team-Based Learning for business education in a private international higher education based on the students' recommendations after the implementation of the Team-Based Learning approach.

iv. the business students' perception of the practice of Team-Based Learning in a private international higher education institution using an Evaluation of TBL questionnaire.

v. the relationship between the students' perception towards Team-Based Learning and learning outcomes among business students in a private international higher education institution.

What will I Be Asked to Do?

You are being invited to participate in a Design-Based Research. Care will be taken by the researcher to protect your confidentiality. Your participation is completely voluntary and anonymous. You have the right to withdraw from the research at any time after consenting.

Dissemination of Findings

The main use of collected data will be to complete a Doctor of Education degree.

What Type of Personal Information will be collected?

No personal identifying information will be collected in this study. Unless you give me permission to cite your involvement as the practitioner, your name will not be mentioned in the research. You will only be identified as 'practitioner'.

Are there Risks or Benefits if I Participate?

Benefits- To assist in providing insights on the issue of Team-Based Learning among business students in this university.

Risks- The risk associated with this research are similar to those encountered in everyday life.

What Happens to the Information I Provide?

All the data will be collected, analysed and reported anonymously. Only the researcher and her lecturers can have access to the data. All electronic data will be stored on the researcher's personal computer. All data will be held until 2020 and will be subsequently destroyed.

Questions/ Concerns

If you have any further questions or want clarification regarding this research and/ or your participation, please contact:

Ki Yen Ping
Faculty of Education and Language or
yenping@oum.edu.my

Dr. Dorothy DeWitt
Faculty of Education and Language
dorothy@oum.edu.my

Signatures (Written Consent)

Your signature on this form indicates that you

1) understand to your satisfaction the information provided to you about your participation on this research project, and
2) agree to participate as a research subject.

You are free to withdraw from this research project at any time. You should feel free to ask for clarification or new information throughout your participation.

Participant's Name: _____

Participant's Signature: _____ Date: _____

Researcher's Name: _____

Researcher's Signature: _____ Date: _____

A copy of this consent form has been given to you to keep for your records and reference. The researcher has kept a copy of the consent form.

APPENDIX E:

The list of Malaysian private universities and colleges are as follow: -

1. AIMST University
2. Asia e University
3. Asia Pacific University of Technology and Innovation
4. Bricksfield Asia College
5. Berjaya University College of Hospitality
6. Binary University College of Management and Entrepreneurship
7. Curtin Univesity of Technology
8. Cyberjaya University College of Medical Sciences
9. HELP University
10. International Centre for Education in Islamic Finance
11. International Medical University
12. International University College of Technology Twintech
13. INTI University
14. Insaniah University College
15. Industrial University of Selangor
16. KBU University College
17. KDU University College
18. Kuala Lumpur Metropolitan University
19. Infrastructure University Kuala Lumpur
20. Linton University College
21. Lincoln University College
22. Limkokwing University of Creative Technology

23. Mantissa College

24. Multimedia University

25. Melaka Manipal Medical College

26. Malaysia Theological Seminary

27. Malaysia University of Science and Technology

28. Management and Science University

29. Monash University

30. Nilai University

31. Open University Malaysia

32. Penang Medical College

33. Petronas University of Technology

34. Putra Intelek International College

35. Swinburne University of Technology

36. Selangor International Islamic University College

37. Sunway University

38. SEGI University

39. Taylor's University

40. Tun Abdul Razak University

41. TATI University College

42. Tunku Abdul Rahman University

43. Twintech University College of Technology

44. UCSI University

45. University of Kuala Lumpur

46. University of Nottingham

47. Wawasan Open University

APPENDIX F

Major Themes and Sub-Themes from the Analysis of "Instructional Issues faced by the University Business Students" Based on the Students' Responses

Research Question	Main Themes	Sub-Themes
What are the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the students' perspectives?	Lack of Interactivity	Lack of class interaction • Students are not motivated to attend classes. Lack of interaction between students and instructors • Insufficient feedback. • Lack of clear instruction for assessment tasks.
	Lack of Learning Skills	Lack of reading, writing and revising skills. Lack of practices in class. Inability to apply theoretical knowledge to practical examples.
	Lack of Practical Exposure	Insufficient knowledge on what is expected in the workplace.
	Personal Effort	The students did not fully contribute in team assessment.

Major Themes and Sub-Themes from the Analysis of "Instructional Problem faced by the University Business Students" Based on the Instructors' Responses

Research Question	Main Themes	Sub-Themes
What are the current instructional issues faced by the students enrolled in the business courses in a private international higher education institution based on the instructors' perspectives?	Lack of Interactivity	Lack of class interaction • Traditional and passive lecture environment.
	Lack of Learning Skills	Lack of relating and application skills. Lack of critical thinking and higher-order thinking skills.
	Lack of Practical Exposure	The instructors are too focus on concept and theory.
	Personal Effort	The students did not prepare for classes. The students did not do revision after classes.

APPENDIX G

RAP Test 1

1. Managers feel that successfully dealing with diversity is of paramount concern for two reasons. Firstly, managers need to know how to motivate diverse workgroups in order to bring out their creativity, and secondly, managers need to know how to communicate effectively with employees who have different values and language skills. These business trends have become on the main drivers of diversity management. **Recognize (Understanding Level)** which of the following drivers of diversity management is relating to these business trends?
(a) Flatter organisations and empowerment
(b) Shortage of skilled workers
(c) Increased diverse workforce and market
(d) Globalisation of market and production

2. Many countries, including Australia, have decided to enact legislation to prevent discrimination and promote greater diversity in the workforce. Laws are often drafted and adopted specifically in regards to diversity. **Select (Remembering Level)** the following issues which is ***NOT*** the focus of governments in Australia when it comes to diversity dimensions covered by legislation.
(a) under-utilised human resource due to disability
(b) Ageing workforce and age discrimination
(c) Difference in education level and wage discrimination
(d) Occupational sex segregation

3. Demographic shifts are changing the look of Australia. Australian society has become more multi-cultural and multi-racial due to migration and the descendants of immigrants from all over the world. **Trace (Understanding Level)** the main drivers of diversity management that are associated with this demographic transition.
(a) Increased discrimination & harassment litigation
(b) Increased demand for corporate social responsibility
(c) Increased use of cross-level and cross-functional teams
(d) Increased diverse workforce and markets

4. The 'glass ceiling' is one the most compelling metaphors for analysing inequalities between men and women in the workplace. It describes the invisible, artificial barriers created by attitudinal and organisational prejudices. According to Watsons (1996), **recall (Remembering Level)** one of the following barrier that prevent women from moving laterally to gain broader experience in order to then move vertically.

(a) Glass wall
(b) Glass door
(c) Sticky door
(d) Sticky wall

5. When thinking about different approaches to diversity management, we can think of diversity management operating at 3 different levels – strategic, managerial and operational. **Identify (Remembering Level)** the level or levels of diversity management involve '*selection and appointment of supervisors and managers who understand the nature of diversity, are receptive and committed to diversity management, are able to build a culture that value diversity and implements policies and programs.*'?
(a) Strategic
(b) Operational
(c) Managerial
(d) Managerial/Operational

6. We have learned that there are approximately 10 main benefits associated with managing diversity well. **Summarize (Understanding Level)** the main benefits organisations can expect to obtain from managing diversity well?
(a) Creativity and innovation will improve through a greater range of perspective by members of different groups.
(b) Lower absenteeism rates among white men, whose absenteeism rates are believed to be higher than women and non-white men.
(c) Faster problem-solving in diversified teams
(d) Cost saving due to lower wages for all employees

7. The term diversity management refers to a variety of management issues and activities related to hiring and effective utilisation of personnel from different cultural background. **Identify (Remembering Level)** which of the following is ***NOT*** an issue relating to diversity management?
(a) corporate culture
(b) HRM system
(c) leadership
(d) financial structure

8. If Giant has acknowledged the existing of differences among the diversified work forces, and has developed its diversity programs. Discrimination and harassment is considered as unacceptable in the work place. Harassment and intimidation are dealt with decisively by the top management. **Indicate (Understanding Level)** Giant's stage in term of diversity maturity.

(a) Asleep stage
(b) Accepting stage
(c) Aware stage
(d) Accomplished stage

9. Kirton and Green (2005) provide us with four types of organisations that are bringing together the social justice and business case in terms of diversity management policy. An organisation that declares itself an equal opportunity employer, but in practice equality and diversity have a low profile and a narrow business case orientation. **Match (Remembering Level)** this example with type of equality and diversity organisation.
(a) Compliant organisation
(b) Non-Compliant organisation
(c) Minimalist/partial organisation
(d) Deviant organisation

10. When it comes to strategy, companies have a number of strategic choices they can make that helps provide overall direction for the company and outlines the basis for its organisational culture. **Relate (Understanding Level)** this statement with the scope of the organisation – what is being done today to achieve the long-term vision.
(a) The organisation's mission statement
(b) The organisation's business statement
(c) The organisation's diversity pledge
(d) The organisation's vision statement

11. There are two broad policy orientations: the *social justice* and the *business case*. **Define (Remembering Level)** the correct assumptions make about the *business case*.
(a) The diversified workforce is the primary sources of competitive advantage.
(b) Employment inequalities are unjust and unfair
(c) Discriminatory procedures and practices must be eliminated by various policy measures
(d) Organisations will certainly benefit from diversity financially.

12. In our tutorial we looked at Giant as a company that understands the value of managing diversity for competitive advantage. Giant's senior management is expected to balance the needs and demands of various stakeholders. **Give example (Understanding Level)** of stakeholder that is ***NOT*** one of the main stakeholder groups of Giant?
(a) Shareholders
(b) Suppliers
(c) Tax payers
(d) Customers

RAP Test 2

1. When we discuss leadership for diversity management, it is important to differentiate between the managership and leadership orientations. According to Creech (1995), **recall (Remembering Level)** why leaders are different from managers?

A. Leaders tightly control the decision process
B. Leaders think of a business following a script
C. Leaders inspire and empower workers
D. Leaders think of improving compliance and conformance

2. We have learned that there are different types of diversity working groups that can provide diversity leadership within an organisation. **Select (Remembering Level)** the type of working group that is associated with the following key characteristics: *"It is responsible for identifying policies, programs and practices that need to be revised to meet the needs of diverse workforce; therefore, members are drawn on the basic of personal experiences and recommendation for inclusion by fellow employees."*

A. Diversity task force
B. Employee advocacy/affinity groups
C. Diversity quality teams
D. Employee diversity council

3. There are various skills and techniques that leaders can learn or develop that can help them function more effectively in diverse organisations. One of the skills and techniques is emotional intelligence. **Identify (Remembering Level)** which of the following is ***NOT*** one of the five components of emotional intelligence at work?

A. Self-awareness
B. Self-actualization
C. Social skills
D. Empathy

4. In our tutorial we looked at how senior leadership at Giant might encourage the development of various employee advocacy/affinity groups. These groups could help management better develop policies and strategies that promote diversity in the organisation. **Indicate (Understanding Level)** which of the following was ***NOT*** one of the employee advocacy/affinity groups we came up with in our list of possibilities for Giant?

A. Young parents
B. Workers with disabilities
C. Women in management
D. Industry association representatives

5. For change to be successful, leaders must create an organisational culture and climate that values and supports diversity. Leaders also need to understand the differences between organisational climate and culture. **Explain (Understanding Level)** Organisational culture. Organisational culture……
A. is make up of shared assumptions
B. concerned with the impact organisational have on groups and individuals
C. consists of shared perceptions
D. emphasis on how the work environment is experienced by organisational members

6. According to Hubbard (2005), organisational culture fulfils four main functions. **Trace (Understanding Level)** which of the following is ***NOT*** one of the main functions of organisational culture?
A. It provides motivation for diversity management
B. It gives members an organisational identity.
C. It facilitates collective commitment.
D. It promotes social system stability.

7. To create a positive climate for diversity, Hicks-Clarke and Iles (2000) claim that organisation must consider elements such as diversity policies and procedures. Contemporary organisations must offer commitment to diversity through specific schemes. **Identify (Remembering Level)** one of the following schemes that is ***NOT*** necessary.
A. Equal opportunity policy
B. Childcare provision
C. Flexible working hours
D. Cultural sensitivity training

8. Thomas (1995) suggests managers and employees have eight response options to diversity, ranging from inappropriate to appropriate. "*all parties must accept and understand differences and diversity, and recognise that I will require changes in the culture and systems of the organisation*". **Associate (Understanding Level)** this statement with one of the responses below.
A. Assimilate
B. Foster mutual adaption
C. Tolerate
D. Building relationships

9. The way organisations approach and pursue their HR planning activities varies significantly, depending on the types of strategies they adopt. Organisations that pursue

the following strategy create a diverse workforce as a by-product of the labour market. They recognise the diversity of individuals in the marketplace and believe that the organisation's labour supply should reflect this diversity. They discourage discrimination ad bias against diversity, but do not attempt to utilise the talents of this pools and individual. **Estimate (Understanding Level)** the type of strategy pursue by these organisations.

A. Moral diversification strategy
B. Business diversification strategy
C. Anti-diversification strategy.
D. Reactive diversification strategy

10. Cox (2001) argues that in order to align better with managing diversity, organisations needs to reshape the recruiting process for all new entrants rather than just for those who are in an under-represented group. It is suggested that attention be paid to the following three areas. **Recognize (Understanding Level)** which ONE of the following is not in these three areas?

A. Reflecting diversity competency in selection tools
B. Managing the composition of recruiting teams
C. Promote under-represented group
D. Conducting new-hire orientation

11. **Find (Remembering Level)** which of the following is NOT a legitimate factor related to possible resistance to performance management?

A. Fear of repercussion
B. "Not one of us" syndrome
C. Lack of understanding of the process
D. Length of service

12. The movement to match the complexity of the workforce with the training and development system requires a more dynamic and flexible approach to training need assessment, design and evaluation. Ford and Fisher (1996) contend that today's changing workforce emphasises the need for training and development. The need for training and development is **defined (Remembering Level)** as:

A. reductionist, massed and reinforcing the status quo
B. holistic, customised and emphasis cultural change
C. holistic, massed and emphasis cultural change
D. reductionist, customised and reinforcing the status quo

RAP Test 3

1. Stereotypes are useful as they allow us to categorize lots of information easily. Rigid stereotypes about people generally lead to prejudice. Stereotyping is **defined (Remembering Level)** as
   A. An affective process
   B. An action
   C. An evaluation process
   D. A cognitive process

2. Highly prejudiced people tend to have what is referred to by psychologists as an authoritarian personality. **Identify (Remembering Level)** which of the following is not considered as one of the characteristics of authoritarian personality?
   A. A strong commitment to conform to prevailing structures
   B. Extremely respectful of authority
   C. Affiliation orientation
   D. Intolerant of weakness in themselves and others

3. We may learn to be prejudiced from home, school, government, workplace, place of worship, and the media. **Relate (Understanding Level)** one of the following to the **media** factor.
   A. Promoting a learning environment that focuses only on one value-system and not discussing other value systems positively
   B. Not passing down equal rights legislation that promotes fairness and equality for diverse groups
   C. Imposing a glass ceiling that blocks nearly all minorities and women from top positions
   D. Imbalanced coverage of minority communities and typically concentrating on criminal activities

4. Different people may express prejudice differently. There are people who often disclose outwardly how they are opposed to unequal treatment, but their inner feelings may suggest otherwise. They may say they are egalitarian and use that open display as an excuse when they act in a way that is not in the interests of diversity. This way of expressing prejudice can be **associated (Understanding Level)** to:
   A. subtly discriminate
   B. deny and rationalise
   C. act out
   D. scapegoat

5. Word of mouth is still the most common way for people to learn about hiring and promotion opportunities. Up to 90% of workers find their jobs this way. If you are not a member of the dominant group, it may be difficult for you to learn about opportunities. **Match (Remembering Level)** this example of discrimination with one of the following HRM activities.
   A. screening
   B. training and development
   C. performance evaluation
   D. recruitment

6. **Select (Remembering Level)** one of the following answers that is ***NOT*** the key leadership challenges in moving beyond stereotyping to profitable collaboration:
   A. Understanding the effects of prejudice on performance
   B. Understanding the life experiences of diverse employees
   C. Understanding the corporate strategy management process
   D. Understanding the type of contact that heals prejudice

7. Among the ways that we can promote collaboration is to "Be willing to relax and tune into the needs and feelings of others, allowing yourself to see things from the viewpoint of others". This can be **expressed (Understanding Level)** as:
   A. empathy value
   B. promote trust and goodwill
   C. work toward synthesis
   D. create synergy

8. **Identify (Remembering Level)** one of the following efforts that will ***NOT*** help leader in implementing collaborative strategies:
   A. Listen and open your mind to other view points
   B. Support equal opportunity efforts
   C. See mutual respect as mutual self-interest
   D. Eliminate the differences in perception among the diversified workforces

9. It is believed that the demands for diversity management will continue into the future and is not simply a passing management trend. **Give one example (Understanding Level)** of this belief through:
   A. intangible assets such as knowledge and soft-skills have been viewed as important sources of competitive advantage for organisation
   B. the structural changes in our workplace mean that our workplaces are become more standardized

C. there are less participation opportunities for the diverse workforces in the information age
D. the workforces are becoming increasing similar due to globalization

10. The rise of corporate social responsibility has impacted many organisations in diversity management. **Relate (Understanding Level)** this impact to one of the following issues.
    A. the enforcement by the laws
    B. the assurance of its financial performance
    C. the need to meet the expectation of the diverse range of stakeholders
    D. the corporate governance issues

11. There are several implications of continue diversity management development to human resource management in organisations. **Trace (Understanding Level)** which of the following is ***NOT*** one of the implications of diversity management to HRM?
    A. To comply with the diversity-related legislation both locally and at abroad
    B. To create positive climate to attract top-level talents from outside the organisation
    C. To tailor HRM policies to fit with the organisation's overall strategic plan
    D. To differential its product offers from its main competitors

12. **Select (Remembering Level)** which of the following is ***NOT*** one of the benefits of continued enhancement of diversity management program?
    A. Increase workforce turnover rate
    B. Improve ability to cope with changes and to transform the organisation
    C. Improve relation with surrounding community
    D. Greater understanding towards an increasing diverse world of business partners

TAE Test 1

The Implementation of Diversity Initiatives: Lessons From the (Battle)Field

Jeffrey A. Mello
Towson University

Diversity initiatives that are developed with good intentions can still result in problems for organizations because there are different kinds of diversity and, more importantly, not all forms of diversity are visible. Deciding which groups to include as part of diversity initiatives can be fraught with political, social, and religious controversy.

This problem is illustrated in a recent case that surfaced in higher education. This case clearly demonstrates some of the unanticipated problems that can result from the implementation of well-intended diversity initiatives. The controversies in this case have important implications for all organizations.

NORTHEASTERN UNIVERSITY

Northeastern University is a privately endowed, nonsectarian university located in Boston. In 1994 the university trustees approved a strategic plan designed to raise the quality of academic programs, heighten student selectivity, and allow recruitment of top faculty.

One component of this strategic plan was a provision that called for the recruitment of openly gay and lesbian faculty members. Because the university already had a university policy that prohibits discrimination based on sexual orientation, in accordance with Massachusetts state law, it was not anticipated that this provision would arouse any controversy. The provision specifically stated that:

> While we have made considerable progress recently in hiring and promoting minority faculty, additional efforts—offering incentives, hiring at appropriate rank, recognizing and rewarding unusually burdensome service demands, and providing ongoing mentoring—are still needed. We must also make similar effort to recruit openly gay and lesbian individuals and persons with disabilities. The success of units in diversifying their faculty and staff will be assessed.[1]

The provision immediately drew the ire of one faculty member who argued, in the university newspaper, that "offering incentives and hiring at the appropriate rank" amounted to giving preferential treatment to gays and lesbians. Further, he argued that such special status for these faculty would alienate others from them,

accomplishing the exact opposite of the administration's intent to make the university more inclusive. In lieu of this, he proposed a policy of tolerance "with respect to all beliefs and practices that are irrelevant to a person's position as an employee or student."[2]

This position was supported by three arguments. The first was that gays and lesbians, by virtue of having been raised in heterosexual households, have no distinct culture relative to the cultures that define racial and ethnic minorities. Second, any policy that sanctioned and encouraged the employment of openly gay and lesbian faculty would likely cause individuals from cultures that discourage same-sex relations to feel uncomfortable and unwelcome on campus. Third, and perhaps most controversial, by recruiting openly gay and lesbian faculty, the university was asserting its own moral stance and that by assessing units based on their activity in this area, the administration was forcing its own moral code or standards on others. It was assumed that this position needed to be adhered to if one was to advance in his/her career at the university.

ISSUES RAISED BY THE NORTHEASTERN CONTROVERSY

Although the controversy at Northeastern ignited from a policy that addresses sexual orientation as a component of diversity, the issues raised by the controversy need to be addressed in any discussion of diversity, above and beyond the issue of inclusion of sexual orientation. The first argument presented in opposition to the policy was that no distinctive gay and lesbian culture exists. A critical issue that must be addressed here is what constitutes a culture for any group in our society. Moreover, the argument that there is no distinctive culture based on one's sexual orientation assumes that culture and cultural identity are fixed for individuals in our society. We also need to consider whether cultural identity and the behaviors and values that stem from it might be dynamic and evolve where in the course of one's life, affiliation with groups and cultures changes.

The second argument presented against recruiting openly gay and lesbian faculty is that others will be offended by a university policy that conflicts with their own cultural, religious, and/or personal beliefs. This argument assumes, at best, that racial and ethnic identity and sexual orientation are mutually exclusive. At worst, the argument attempts to set racial and ethnic minorities at odds with sexual minorities. It further assumes that all individuals of a certain racial, ethnic, or religious background share common ideologies. Diversity initiatives need to consider that within our society, individuals may fall into several categories of diversity simultaneously and that within a category of diversity, there may be subcategories, such as lesbian African-Americans or disabled Jews, for example.

The third argument objects to the university administration taking a moral stance and for requiring alleged indoctrination to this position as a condition of favorable continued employment. In this context one needs to consider the question of whether same-sex relationships are universally a moral issue. To some individuals, including the faculty member who composed the letter, they clearly are. Yet to many others, same-sex relationships transcend any morality argument and are a civil rights issue. This raises the question as to what constitutes a moral issue and moreover, what morals set the standards for judgment or assessment of morality or

immorality. Diversity initiatives in organizations need to realize that not all employees and stakeholders may frame diversity or morality in the same way. The critical lesson here is that there are no universal standards of right or wrong, appropriate or inappropriate, moral or immoral, or ethical or unethical behavior—just personal opinions that are often based on the teachings of one's culture and the opinions of others.

ARMING ONESELF FOR THE DIVERSITY BATTLEFIELD

Diversity initiatives can provide significant benefits for virtually all organizations. When implemented properly, they can further the mission of most educational institutions and enhance learning environments; they allow public institutions to better understand and serve their constituencies; and they allow all organizations, regardless of ownership, industry, size or age, to attract, retain and develop the best qualified, most motivated, productive employees by moving human resource management decisions away from personal factors that have nothing to do with job performance.

Despite the importance for both individuals and organizations of appreciating and understanding diversity, it is important that those responsible for diversity initiatives realize that diversity can result in a good deal of internal conflict, strife, and harm if not managed strategically. As the Northeastern case clearly illustrates, diversity initiatives designed to facilitate more inclusive and better-performing organizations can simultaneously ignite social, political, and/or religious controversy.

Any diversity initiatives that are undertaken, much like any organizational intervention or change, need public support and commitment from the top echelons of the organization in order to be successful. Diversity requires much more than mere lip service; those who initiate discussions of diversity in organizations need to be aware of the many controversies that such discussions can spark and be prepared to manage the dialogue and disparate opinions that will result. Although diversity initiatives continue to be popular in both the public and private sectors, they can be extremely dangerous if implemented in an uninformed manner, passively or as just another management fad. However, if those responsible for diversity understand the varied contexts and controversies associated with diversity, as discovered in the Northeastern case, the organization then is prepared to design and implement diversity programs that will be critical to the organization's ability to succeed and thrive in the global marketplace of the twenty-first century.

Questions:

1. **Construct (Creating Level)** a summary for the Case Study.

2. **Outline (Analyzing Level)** the theor(ies) used in the Case.

3. While there is much evidence about the benefits of diversity management, there has also a great deal of challenges in implementing it in an organisation. **Report (Applying Level)** how might diversity initiatives hinder or retarded by any organisational process? **Recommend (Evaluating Level)** the diversity initiatives to minimise their costs while maximising their benefits?

TAE Test 2:

First Union Case: Lessons in the Politics of Space

Susan Stites-Doe
Melissa Waite
SUNY College at Brockport

Rajnandini Pillai
California State University–
San Marcos

THE CASE: AN OFFICE WITHOUT WALLS

Meet Meg Rabb

Meg Rabb was a self-made woman. Having started her full-time career at 18, she was at the pinnacle of her career as vice president of training for First Union Federal, a large (fictitious name) savings and loan located in the eastern United States. Meg's division was responsible for both employee training and management development, and the services that her staff provided were very visible in the organization. Her unit was known as a "staff" one in the organization; that is, the training and development division served the needs of other units that were directly tied to serving consumers. These later "line" divisions were closer to final customers and, therefore, enjoyed high status in the organization.

Having recently survived several years of financial crisis and regulatory scrutiny, First Union was embarking on a new customer focus that it took very seriously. Significant amounts of financial resources were directed to employee training. All branch delivery mechanisms and systems were aimed at the achievement of a single service target: meeting consumers' changing financial needs. New approaches to service focused on customers' convenience needs and on the delivery of consistently high-quality personal service. At the same time, attention to cost containment was necessary to avoid further financial crisis and please the board of directors; the organization spent resources available for internal programs very carefully. In sum, then, the fact that the training and development division was getting a big slice of the available resources gave them some stature in the organization, and the clout that went with it, even though they were still a staff function and not involved in direct customer interactions and/or service delivery.

Meg's achievements were financially rewarding and personally satisfying. She was very good at both the design and implementation phases of the training process, and the 12 trainers and management development specialists under her charge were

highly qualified, and respectful of her developmental and caring leadership style. Vice president titles at First Union Federal were hard to get, and Meg had only recently been promoted to the position of vice president. Five years ago, when she had been hired at the level of assistant vice president, not a single woman enjoyed the V.P. rank and title, and only a handful of men were V.P.s, out of a total work force of 1,700 employees. After 5 years of hard work and measurable success in her job, Meg was promoted to the level of vice president. One week after the announcement of her promotion, her boss, Dan Cummings told her that she would receive a new office and that new furniture would be available to her, should she be interested in replacing her existing desk and other fixtures, lamps, and equipment.

The Office As an Incentive

Being a V.P. at First Union brought certain perquisites, or nonfinancial rewards. An office, a travel allowance, a larger share of human and other departmental financial resources, and a parking space in the corporate lot—all of these traditionally accompanied an assistant vice president in the trip up the corporate ladder to vice president.

Meg looked forward to the privacy that her new office would afford. That, above all other nonfinancial perquisites, was to be cherished in her very busy office. The office was characteristically noisy, with lots of people shuffling in and out of the office area all day long to attend training sessions or to schedule programs.

The physical office layout in her department was uncomplicated. Each employee, in a total staff of 12, had his or her own "section"—a partitioned area walled with movable screens. Employees had variable quality office furniture within their areas, depending on their level in the organizational hierarchy. All areas had desks; however, the lowest level employees received cheaper quality furniture of a hand-me-down quality, a desk chair, and possibly a guest chair. Lower level employees typically had just enough room to move around in their spaces and often had to share space within screened-off areas with other employees. Meg herself had been seated within a screened-off area located in the corner of the work area; this space had two floor-to-ceiling glass walls that overlooked the expansive city, 10 stories below. Her plan was to make this same space her office.

The Walls Came Down

The construction of the office was completed quickly, within 3 weeks of her promotion. The office was simply decorated, with grey carpet and sparse decorations—including some tasteful (but inexpensive) modern prints, a desk lamp of modern design (selected from an office supply catalog), and utilitarian desk accessories of simple design. Meg planned on using her existing office furniture in order to economize: The old furniture suited the decor of the new office, and she felt good about saving money for First Union. Her own preference was for modern decor—a stark contrast to the other executives' offices, which were decorated in conservative colonial decor. She occupied her new office space comfortably for 1 day.

Upon arriving at work the following morning, she was summoned into her boss' office. Dan Cummings was the senior vice president of human resources. He was well liked and was very accurately tuned into the political rules of the game; his in-

fluence in the organization seemed to blossom after he organized the first annual "Dan Cummings Golf Invitational," now in its fourth year of operation. Golfers from the old guard at First Union—those V.P.s and assistant V.P.s close to the senior management group—always felt honored by their invitations. Invitations denoted status in the organization. Meg had taken golf lessons this past summer in hopes of being included in next year's tournament, despite the fact that no female employees had ever received an invitation to the tournament. Even though her boss knew about her golf lessons, she had not been invited that year, and she'd never voiced her disappointment over not being included to anyone.

Upon entering Dan's office, Meg was perfunctorily informed that the president of First Union had expressed concern over the size of Meg's office. A close friend of the building manager, the president had strolled down to the construction site 2 days ago to meet the manager for lunch. The bottom line was this: The president had ruled that the office was too large. Meg was told that the existing office would have to be "modified" to conform with new building regulations set in place just that week. The plan was to tear down her office walls and to rebuild them using the proper 10 feet by 10 feet specifications detailed in the new regulations. Her office, unfortunately, had been built using 12 feet by 12 feet specifications deemed by the building manager to be appropriate.

Her immediate reaction to this troubling news was one of anger. She masked her true feelings behind a demeanor of cooperative resistance. She was very concerned about what this decision would mean to her employees—how they would take the news, and how she could present it to them to mitigate damage to her department's normally healthy morale. She had other concerns, too. She worried that this event would cause her to lose power and esteem among her peers. Meg questioned the building manager later that morning to try to get a handle on how and why such an expensive mistake had been made. He told her that the 12 feet by 12 feet specifications that had been used for her office were set in place by him, personally, to take advantage of the view and to make the best use of the surrounding building structure. Other contacts told her that the former building regulations—more lax than the current, yet similar—had been frequently ignored to suit individual employees' tastes. She couldn't help but feel sorry for the building manager. He had used his skills in office design to try to match form with function; his friendship with the president had apparently not been enough to shield him from personal repercussions. The tone of his voice and his eagerness to end their telephone conversation suggested that he was annoyed about the entire affair. Her empathy for him was joined with confusion. Had he not taken risks in the past by deviating from strict adherence to the regulations? Had he not already considered these risks? And, why was she the first person to fall victim to strict adherence to this regulation?

The Culture and Power Base at First Union

The overall culture of the bank was marked by conservatism. As one might expect when money is involved, cautiousness and conservatism were valued, as was care in retaining tight financial control over depositors' money. Power and influence at First Union were clustered primarily in the line units and at the executive levels of the organization. The mortgage division was particularly powerful. First Union had

only recently remodeled the floor on which the mortgage division was located. As the "bread and butter" arm of the organization, the mortgage division enjoyed substantial power because of the revenues it generated and its contribution to the bottom line. Visitors to the newly remodeled offices never failed to remark on the beauty of the mortgage offices and on their distinctiveness from the rest of the bank. Rumor had it that the president of the bank was disturbed about the cost of the renovations, but failed to act on the matter due to the high share of profits that the division generated.

In terms of power distribution across gender, First Union had no ranking female executives above the level of vice president. This fact prompted intervention from the Equal Employment Opportunity Commission, who encouraged First Union to seek out qualified female managers for promotion to executive status. The EEOC's scrutiny was public information, and Meg often felt awkward about being the first female to pave the way. Meg did not have a mentor at a higher rank than she was in the organization. Her philosophy had always been that hard work pays off, and she was not particularly sensitive to social and political cues in the environment. Her male counterparts were very active and visible across the political terrain at First Union, as her boss' golf tournament activities attested. Friendships mattered a lot in the organization, and many of her male counterparts in other divisions were socially connected with their superiors outside of work.

Some of the artwork at First Union seemed to be very telling of values held to be near and dear to the organization. One lithograph was particularly indicative of the gender values in the organization. It featured a series of free-floating female breasts arranged in a decorative manner. The print was located in the president's conference room and was visible to board members, outside clients, and to internal staff members who attended regular meetings in the room. One lower level female manager who visited the room perhaps 15 times had never deciphered the objects in the lithograph. A higher ranking male colleague proudly pointed out the identity of the shapes to her, laughing as he said, "Hey, did you see what this print is made up of?" She was embarrassed by his remark, but joined in his laughter to get past the moment.

What Should She Do?

Meg sat down and made notes about how she would proceed. One thing was sure: If she was going to survive at First Union, she would have to learn how to play ball. As a V.P. in a staff unit, she had to do what she could to elevate her political status in the organization. Her worst fear was that she might lose her job; her very survival might depend on developing more political savvy. She had no one to turn to in the organization for advice and felt that she couldn't afford to make even a single mistake. Meg resolved to supplement her golf lessons with a crash course in organizational politics.

Questions:

1. **Construct (Creating Level)** a summary for the Case Study:

2. **Outline (Analyzing Level)** the theor(ies) used in the Case

3. **Discuss (Applying Level)** all the factors that may have contributed to the walls coming down in Meg's office. If you were the president of First Union and as Meg's mentor, **propose (Creating Level)** ways to help Meg to understand her current situation? Do you think she could have done anything differently to avoid this occurrence? **Recommend (Evaluating Level)** strategies to prevent similar incidents from happening again in the future?

TAE 3:

Nightmare on Wall Street

Melinda Ligos

In this unprecedented bull market, selling in the financial industry is more lucrative than ever. It's also hell for many women, who are blatantly harassed and discriminated against by their managers. When saleswomen head to Wall Street, they dream of big money, million-dollar deals, chauffeured limos, and a house in the Hamptons.

What many find instead is the stuff of nightmares—demeaning managers, crude jokes, physical assaults, and a glass ceiling so impenetrable it might as well he made of titanium steel. "The [financial industry] is the last bastion of testosterone gone wild," says Marybeth Cremin, the original plaintiff in one of two major class-action sexual discrimination/harassment lawsuits recently settled against two of the nation's largest securities firms. "This industry has been discriminating against women for years."

At the time this article went to press, both Merrill Lynch and Company and Salomon Smith Barney were reaching financial agreements with thousands of women who had filed discrimination suits against them. In the Smith Barney case, more than 22,500 former and current sales assistants and brokers throughout the country alleged widespread sexual harassment and discrimination. At Merrill Lynch, more than 900 current and former female brokers contend that the firm had discriminated against women in wages, promotions, account distributions, maternity leaves, and other areas. And as the result of the filing of a discrimination claim, the Equal Employment Opportunity Commission (EEOC) is currently investigating allegations of discriminatory practices alleged by a high-earning female broker at a third firm, Morgan Stanley Dean Witter [now Morgan Stanley].

While the very existence of these suits might seem disturbing, they seem to expose a much larger problem. Many financial industry insiders say sexual harassment and discrimination in the industry are not unique to the companies mentioned in these lawsuits. For many women who sell on Wall Street—especially in securities and investment banking businesses—harassment simply comes with the job. What's worse, sales managers not only tolerate this hostile environment, but actively promote it.

"Stereotypes about women's abilities run rampant in the financial industry," says Sheila McFinney, an organizational psychologist familiar with Wall Street. "A lot of men in management feel that women don't have the stomach for selling on Wall Street. They think they can't handle the adverse climate."

In addition, McFinney says, veteran Wall Street managers may not feel that women deserve to be in positions where they could potentially earn a lot of cash. "There's a lot of money coming into some of these firms," she says, "and there's this machismo culture that doesn't feel women should get a piece of the pie."

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These stereotypes drive all kinds of business decisions, McFinney says, from who gets which accounts to who gets promoted to who gets which perks. And the problems are created by a group of predominately male managers who foster a culture in which women are, at best, made to feel uncomfortable and, at worst, driven to the point of personal and financial ruin. Of course, the financial industry isn't the only one in which sexual harassment and discrimination occur, but it does offer a particularly disturbing example of how things can go terribly wrong if managers allow these practices to fester.

A REAL TYRANT

Why do managers discriminate against women in the financial industry? Because they can. For years, most firms in the industry have required employees to sign mandatory arbitration agreements, which limit their ability to file claims in federal or state court. Instead, employees must submit complaints of discrimination to an arbitrator, who acts as judge and jury in determining the validity of an employee's claims. (Class-action suits—suits with multiple plaintiffs—traditionally have been exempt from mandatory arbitration.)

Industry insiders say the process is flawed, because the arbitrators tend to be older white males who often discount discrimination claims. "Managers have no fear of accountability," says Linda Friedman, a partner at Stowell and Friedman, the law firm representing the plaintiffs in both the Merrill Lynch and Smith Barney class-action suits. "There's no fear of repercussions, no fear of embarrassment or public scorn. Most managers believe they can get off scot-free." That's what one branch manager at Salomon Smith Barney may have believed—and apparently bragged about as he allegedly harassed and discriminated against female brokers and sales assistants in the company's Garden City, New York, branch for years.

When Roberta Thomann first came in contact with branch manager Nicholas Cuneo, she says, she tried to avoid him. Thomann, a successful sales assistant for the top broker at the branch in the early 1990s, says Cuneo was "a real tyrant. He treated women like garbage." Thomann says she tried to ignore it when Cuneo and other male brokers openly used crude language when referring to women in the office. According to court records, Cuneo once paraded a female sales assistant around the office who had worn culottes to work and told her to spread her legs at each male broker's desk so the broker could vote on whether the culottes violated Cuneo's dress code. (Note: Cuneo did not return repeated phone calls to discuss these allegations. In addition, Joan Walsh, director of employee relations at Smith Barney, said she could not comment on the specifics of the lawsuit.)

Thomann says she kept quiet at the beginning. "I would just think to myself, 'What an ass—,' and get back to work," Thomann says. Then, in 1994, Thomann, who was at that time a senior sales assistant, became pregnant and could no longer ignore Cuneo. She went on maternity leave for 8 weeks and was scheduled to return to work in mid-June. At four o'clock on the Friday before she was to come back, Thomann says she got a call from Cuneo. "He said that my position had been replaced, and I was going to be demoted," she says.

Thomann says she was offered a lowly sales assistant position in the bullpen, a notoriously rowdy area reserved for 11 broker trainees. "I was treated as if I had a

disease," she says about her return to work. At one point, Thomann claims, the top broker she used to work for sent her and other sales assistants a memo promising that any charges of sexual harassment would be deliberated in the "Boom Boom Room," a room Cuneo had allegedly created in the basement of the office building, which was decorated in fraternity-house style, with a toilet bowl hanging from the ceiling.

Thomann says she wrote a letter to the branch's human resources department complaining of discriminatory treatment. "I thought, 'Now, they're really going to be in trouble,'" she says. But shortly after she filed the complaint, Thomann says, Cuneo began walking by her desk every 15 minutes, allegedly singing, "You're dead, you're dead, you're dead." Throughout the whole ordeal, according to court documents, Cuneo often openly displayed his lack of concern that Smith Barney would discipline him for violating its written antidiscrimination policies.

"I thought, 'Oh my God, nothing's going to happen,'" Thomann says. Two weeks later, her fears were confirmed when she got a letter from the human resources department stating that an investigation had revealed no discrimination. That was the last straw for Thomann. She quit her job in 1994 and gave up her Wall Street aspirations for good. She later became one of the original plaintiffs in the Smith Barney suit. "He thought he was invincible," Thomann says of her former boss.

As invincible as Cuneo may have felt, he allegedly tried to further safeguard himself from discrimination complaints by attempting to intimidate broker Pamela Martens and other female workers at the branch. Court records state that when Martens filed a discrimination complaint against Cuneo, he told at least one coworker that if he got into trouble because of the complaint, he would "f—[Martens] where she bleeds" and "snap [Martens'] neck." Martens was terminated by Smith Barney in October 1995, two days after Cuneo's retirement.

Wall Street insiders say Cuneo's reported air of invincibility is typical of managers in the financial industry. One successful female broker who works at a major Wall Street firm says her former manager used to call her and the only other female broker in the office "C—t One" and "C—t Two." "These guys are making big bucks, and they're real cocky," she says. "Their attitude is like, 'I'm not going to let some dumb bitch get in my way.'"

ANSWER YOUR OWN DAMN PHONE

Sexual harassment is only part of the story in the financial industry. Many female brokers who aren't harassed still face discrimination—sometimes in not-so-subtle ways. In both the Smith Barney and Merrill Lynch lawsuits, dozens of managers are accused of refusing to hire female brokers and managers, and of denying women the same pay and opportunities as their male counterparts, among other discriminatory acts.

When the Smith Barney case was filed, the plaintiffs claimed that less than 5 percent of Smith Barney's 11,000 brokers were female, and, although the company had 460 branch offices, fewer than 10 branch managers were women. "Indeed, the substantial majority of Smith Barney's employees are white males," the court filing alleged. The Merrill Lynch lawsuit tells a similar story. When that suit was filed, its

plaintiffs complained that out of 76 sales managers, only seven were female, and only about 14 of its 125 brokers were women.

Why were the numbers so low? The plaintiffs in both cases allege that their managers purposely made it difficult for them to succeed. While Thomann and her female coworkers were struggling in Smith Barney's Garden City office, trouble was brewing in the Kansas City branch for broker Beverly Trice, who later became another of the lawsuit's original plaintiffs. Trice worked for Smith Barney from 1990 until 1996, and claims she was denied the same privileges enjoyed by the office's male brokers. For instance, when her sales assistant left the company, her sales manager allegedly refused to fill the position for 7 months, telling Trice that she could "answer her own damn phone." "I would be talking to a very important client, and I'd have to say, 'Hold on a minute,' and answer my other line, or I'd miss calls," Trice says. "It got so bad that after I interrupted a long-term client several times in one call, he told me that he couldn't handle it anymore."

In addition to being denied privileges of employment, Trice says her sales efforts were undermined by her male peers and supervisors. For example, on one occasion, she says her manager prevented her from mailing out her quarterly statement to clients in a timely fashion by falsely telling her that she couldn't send certain articles typically sent by brokers to their clients. Another time, a male broker in the office reportedly stole Trice's quarterly monitors from her desk and hid them for his own use.

After she filed several complaints with human resources, Trice claims that her boss fired her. His reason? "He said my desk was too messy," Trice says. "Then he started laughing raucously, and told me if I sued, I would never get a job in the business again." Sure enough, her manager was right. Trice says she had five major job offers withdrawn—some with salaries of more than a million dollars—after her former boss told the prospective employers that she was suing the firm. "This is a very small community," says Trice, who is still unemployed and spends her time working on a book about her experiences.

Managers at Smith Barney and Merrill Lynch might not be the only ones who allegedly have used such tactics to keep women in the industry's lower ranks. At least one woman, Allison Schieffelin, at a third brokerage firm, has filed a complaint with the EEOC against her current employer. For more than a dozen years, Schieffelin was on Wall Street's fast track, eventually taking home more than $1 million per year as a senior salesperson in the convertible bond department at Morgan Stanley Dean Witter.

But her progress began to stall a few years ago, when, she claims, she was denied many of the privileges that males in her position received. According to her lawyer, Wayne Outten, Schieffelin was excluded from male-only events, including trips to Manhattan strip clubs, and her division's annual 5-day golf outing to the Doral Resort and Spa in Florida. "The [golf trips] were very important opportunities to mingle with senior executives and clients, and Allison lost out," Outten says.

In 1996, although she was one of the company's superstars, her lawyer says, Schieffelin claims she was passed over when she became eligible to become a managing director. She was bypassed again the next 2 years. In the spring of 1998, her lawyer says, she was told that she would never become a managing director, even though men who seemed less qualified had received the title. "The only rationale

[Morgan Stanley] has provided is extremely vague," Outten says. Outten alleges that Morgan Stanley has only one female managing director out of 40 in its North American division. Morgan Stanley refused to comment on the case, which is still in progress, and would not provide information about the number of females in top management.

Outten says super-successful saleswomen like Schieffelin—who is still working at the company—are often even more likely to experience some of these discriminatory actions than women who are less successful. "A lot of these guys have a sort of western gunslinger mentality," he says. "They don't care if women get jobs as clerks or secretaries. But when they think they could take away another guy's paycheck, they're going to fight nasty."

THE ANTI-MOMMY SENTIMENT

At one Wall Street firm, there's a cruel joke that goes like this: "There's only one thing worse than a female broker—a pregnant broker." "As soon as you're pregnant, they find some way to drum you out the door," says a male broker who works for the firm, which is among the most respected in the industry. Such appeared to be the case with Marybeth Cremin. For 13 years, Cremin, a broker at Merrill Lynch's branch office in Northbrook, Illinois, was managing more than $60 million in assets. A mother of three with an MBA, Cremin said she ignored remarks by her branch manager about how women couldn't balance work and family. She also claims that the manager refused to send her to financial planning seminars and other training opportunities "because he said I was too busy raising my children." "He pushed pregnant women out the door all the time," she says, "while telling male [brokers] that they should have more kids and a big mortgage so that they would be motivated to sell more. It was a big double standard."

When Cremin announced that she was pregnant with her fourth child, she says, the manager began pressuring her to transfer her book of customer accounts to other male brokers at Merrill Lynch. "He threatened to break up my partnership with a male colleague and reduce my support staff if I didn't give up my clients," she says. "But I told him I had worked very hard to get where I was, and I wanted to provide for my children."

Later in her pregnancy, Cremin had to go on total bed rest, and the manager turned up the heat, Cremin says. In June 1995, shortly after she gave birth, he reportedly told Cremin that he would give her a financial incentive—and a permanent part-time position as a financial planner—if she gave up her accounts. She took the offer. In August 1995, the week before Cremin was to start her new position, she says the manager's secretary called her to let her know the company was putting through her termination papers.

"I was dumbfounded," she says. "I said that there must be some kind of screw up." It turns out there was no mistake. The same secretary the following week confirmed the termination, Cremin says, and the manager "even had the nerve to call me on the phone and tell me why." Merrill Lynch maintains that Cremin resigned from her position. In addition, the company "is committed more than ever to improving the diversity of its workforce, particularly among [brokers]," says Joe Haldin, a Merrill Lynch spokesperson.

CHANGING THEIR WAYS?

To some victims of harassment and discrimination, Haldin's assertion may sound like corporate-speak aimed at deflecting criticism. But the fact is, executives at Wall Street firms are at least making efforts to address these problems. A recent study of Wall Street from the United States Commission on Civil Rights states that the industry deserves credit for having at least started to embrace diversity (though Mary Frances Berry, the Commission's chairwoman, laments a "dismal lack of progress").

As part of their respective settlement agreements, Merrill Lynch and Smith Barney have pledged to make sweeping changes in the way they treat women. Merrill Lynch is boosting its recruitment efforts, and between 1997 and 1998, Haldin says, the number of female brokers hired by the firm increased by about 7 percent. Merrill Lynch also has ended the practice of mandatory arbitration (a second Wall Street firm, Paine Webber, followed suit); and according to Haldin, the company is implementing a new policy this year governing the distribution of accounts, which ensures that female brokers "receive their fair share." In addition, the company is in the process of working out financial settlements with each plaintiff

As part of its class-action settlement, Salomon Smith Barney has committed $15 million to diversity initiatives and last year hired a substantial number of female brokers. "Between 32 percent and 35 percent of all new brokers hired are females," says Walsh, Smith Barney's director of employee relations. In addition, she says, the company has conducted sexual harassment prevention training programs every year since 1995, and more than 8,000 managers have completed the workshop. Women are also encouraged to explore promotional opportunities with the company, she says.

These efforts may help some women—but they won't help many of the plaintiffs involved in the two class-action lawsuits. Some of those women left the financial industry after their experiences. Others remain with the companies they sued, or have gotten jobs at other firms. "Many of their lives are destroyed," says Friedman, the attorney representing both groups, "and their spirits are destroyed as well. Unlike women who are 20 years older than they are, most of these women grew up being told every day that there were no limits; that they could be anything they wanted to be. When they found out that wasn't true, it was a harsh reality that many won't recover from."

Managers who harass or discriminate also face harsh realities. Not only do they leave themselves open to lawsuits, but they also seriously jeopardize their companies' bottom lines. "Women are beginning to control a lot of money in this country," Cremin says. "As they become more sophisticated investors, they're going to want to buy from other women. And they're sure as hell not going to entrust their money to a firm that has a reputation for not being women-friendly."

MANAGING IN A MALE-DOMINATED INDUSTRY

Sexual harassment and discrimination happen in virtually every industry—but it's especially prevalent in industries that traditionally employ males. Here are some tips from Greg Rasin, a partner at Jackson Lewis, a New York–based law firm that

specializes in labor and employment law, on what managers in male-dominated fields can do to make sure their sales force is female-friendly.

Create a Zero-Tolerance Policy

"Managers need to convince their male employees that discrimination and harassment won't be tolerated," Rasin says. Managers should create a policy prohibiting such behavior and distribute it to all employees.

Keep It Clean

"Seemingly innocuous jokes and sexual comments should be considered off limits," Rasin says. Employees who make lewd remarks should be disciplined immediately.

Rethink Social Outings

Taking clients to strip bars and similar outings isn't acceptable, Rasin says. "Women who work in an environment where this happens are put in an awful situation," he says. "They're either forced to go and potentially be embarrassed, or they're excluded. It's just wrong in today's world to entertain a client in this way—and it's discriminatory.

Distribute Accounts Fairly

That means, in part, working out a plan so that women who take maternity leave aren't unfairly penalized as a result. "Treat all medical leaves the same," he says. If a male salesperson is out for 3 months following a heart attack, you'd better treat him the same as you would a woman who's out on maternity leave."

AN OASIS FOR WOMEN

While most Wall Street firms are ruled by male managers, here's a big exception: Fiduciary Trust Company International, a global asset management firm, not only has a female CEO and president, it employs dozens of female vice presidents. In fact, 40 percent of the firm's professional staffers are women, and 26 percent of the senior staff is female. Many credit the large number of high-level females to the hiring practices of CEO Anne Tatlock, who says she strongly believes that "sex does not define your capability." But, she says, the company got its female-friendly reputation years before she came to Fiduciary in 1984. "Part of the reason was that the firm was founded to manage private wealth," she says, "and our clients wanted family-type relationships with our employees. Women are exceptional in this environment," Tatlock says.

A money manager for more than 37 years, Tatlock herself has had some struggles moving up the ranks. In the 1960s, she says, she was the first woman hired at Smith Barney "who was not a secretary." As she climbed the ladder in the financial world, Tatlock remembers "having to be smuggled in through the back door" of all-male clubs in order to give presentations to clients. She also remembers cases where she "did all the work" on an account, only to have a male colleague present her work to superiors as his own. Interestingly, though, Tatlock says she probably experienced less discrimination than women who entered the industry in the 1970s and later. "At first, I didn't have very high expectations for my career, so I probably didn't present myself as much of a threat," she says. Now, this high-ranking Wall Streeter is an inspiration to other women at the firm. Marilyn Fee White, Fiduciary's vice president of institutional new business, says Tatlock's presence at the helm sold her on the job. "It's wonderful to work in an organization that is attuned to the different strengths that both men and women bring to the business," she says.

Questions:

1. **Construct (Creating Level)** a summary for the Case Study:

2. **Outline (Analyzing Level)** the theor(ies) used in the Case.

3. Based on the Case "Nightmare on Wall Street", **propose (Creating Level)** one specific evidence each to show that "stereotyping", "prejudice", and "job discrimination" are happening in the financial industry. **Articulate (Applying Level)** the costs of this diversity discrimination to the industry (3 marks)? If you were a diversity consultant for Salomon Smith, Merrill Lynch, or Morgan Stanley Dean Whitter, what policy changes would you **recommend (Evaluating Level)**? Why?

APPENDIX I

Students' Instructional Needs Interview Transcript

Interviewer: Hello, good afternoon. Thank you very much for volunteer to participate in this study. Please be informed that all data collected in this focus group interview session will be kept anonymous and confidential. You have the right to withdraw from this study anytime. The objectives of this interview session is to study the problems faced by our business students in your studies, the possible solutions that will resolve your learning problems, and the possible study support methods that may assist… you, our students in resolving your learning problems. First of all, can you briefly tell us about yourself? Erm… Let's start with Colin… Yes Colin, please.

Alfred: Good morning… oh no no… good afternoon, Miss Ki. I am Colin. I am a second year local student. I am majoring in Accounting. I hope my idea helps in this study.

Mary: Hello, Miss Ki. I am Silvani, your last semester student for one of the subject. I feel glad to be invited today. I am a final year Accounting student.

Jody: Good afternoon everyone. My name is Sonia. I am a local Bidayuh student and my major is Finance. This is my Year Two in the university.

Gary: Good afternoon Miss Ki… and friends. I am Timothy from Kuching. I am majoring in Human Resource Management. This is hopefully my final semester in university.

Rebecca: Hi everyone. I am Felicia from Indonesia. I major in International Business. I am a second year student.

Farhan: Good afternoon, Miss Ki. My name is Ahmed. I am a second year International Business student. I am happy to share my experience [laughing] with you all.

Interviewer: Thanks for your introduction. Let's start with our first question. My first question is… What are the problems faced by all of you in the teaching and learning process so far?

Gary: Let me start first… err… I feel I have not received enough academic support and feedback from some of my lecturers. For example, mid-term tests and assignments have been marked and gave back to us without any

feedback… arr… I have no idea of how am I doing in class, or the areas I should do better in my final exams.

Farhan: [Laughing] Okay… arr… Also, we are not given a chance to see our final exam scripts for some units… This deny our opportunity to know what are our mistakes in the final exams. Sometimes…, I do not know what is expected from us when we are answering the tests or assignments. Erm… because little feedback given during the semester. I personally have problems to write my answers to tests or assignments.

Mary: I also face difficulties when reading from textbooks or reference books. I don't know what is relevant or not, especially for our Accounting subjects… err… I also face problems when revising for tests or exams. I only read on lecture slides which are not enough for me. I think most of the units are too… erm… exam-based.

Rebecca: I feel unmotivated to attend lectures or tutorials because the erm… lectures or tutorials are not interactive and unproductive. I don't feel like to attend classes… because they were so boring.

Farhan: Yea, I agree. The classes are so not interactive. I rather study myself at home. I choose to skip tutorials because no participation… marks will give for tutorials for some units.

Jody: I struggle to apply the theories learnt in classes to real-life, especially for management units and case studies… err… This will affect my grades because we will be tested based on our skills of applying… theoretical knowledge into practice.

Alfred: I also confused what is expected from us in actual workplace when we graduate and… erm… how to apply our knowledge to the workplace. I have no… knowledge of what my future boss will expect from me in my future.

Interviewer: What do you think are the possible solutions that could resolve your learning problems?

Gary: I feel it is important for lecturers to mark and give test for assignments back to the students on time before the final exams with constructive comments or remarks… In this instance, students will be given the opportunity to improve in their areas of weakness before sitting for their final exams. Continuous assessment and feedback is important.

Farhan: I also feel that… lecturers should always make use to our final exam answer scripts. They should give us the opportunity to ask and to improve our mistakes. Both pre and post exam feedback from lecturers are both important and…err… should always available to us.

Jody: erm… Lecturers should post more samples practice questions on Blackboard so that students may be able to…err… practice more questions to prepare for the final exams. For example… err…, exam samples from the main campus should be also made available to the students with subject answers in order to give us a clear idea of what is required in the final exam.

Mary: I request for various… workshops every semester especially for students who come from a different education background…Arr… I also suggested for a peer assisting program where senior students are encouraged to help their junior peers in their areas of weakness.

Alfred: I propose a mentor-mentee program…err… A lecturer will supervise a student who requires extra help academically. This program was well-liked amongst my friends too… especially weaker students who require extra help.

Rebecca: I feel that lectures and tutorials have to be more interactive. And err… the tutorial time can be reduced to only one hour. The lecturers… err… will encourage students to… engage in discussions rather than just give answers to the students.

Jody: To motivate students' participation…erm…, I suggest that… tutorial participation marks should be given which has also been carried out in main campus and has been strongly successful in encourage classroom participation. I experienced this when I was an exchange student in main campus.

Farhan: To help students to apply theory to… practical examples, more field trips should be organized to give us a clear view of how theories work. And, more internships should be available to students during their holiday because these opportunities will help them to apply theories to practical work.

Alfred: I request for more career fairs in the campus throughout the year…erm… so that we will have the opportunities to speak to potential employers to know what is expected of them in future workplaces. This way, students

will be able to work more diligently and have the right focus in getting their desired job.

Interviewer: Which is the most preferable study support method that may assist you in resolving your learning problems?

Alfred: urr… I choose Mentor-Mentee system… erm… because if it is done effectively, it can help the students to overcome their learning difficulties.

Rebecca: I had an experience with Mentor-Mentee system previous semester and… arr… there is a great improvement in my performance after this system. I can know my academic progress through this system.

Mary: I am not willing to pay for extra cost of peer tutoring but I love peer tutoring method. Err… I like to learn together with my peers.

Gary: I need somebody to give… directions to me on how to… erm… study effectively and how to improve my writing skills.

Jody: I have no idea… arr… but I think peer study works for me.

Farhan: I don't mind as long as it is something interesting and interactive.

Interviewer: Is there anything more that you want to share with me?

Respondents: [Silent]

Interviewer: No worry… anything you would like to add before we end the session?

Jody: I have one extra problem that I don't know should I say here… arrr… Anyway, sometimes… arr… the instructions for assignments are unclear. And some lecturers and tutors does not deal with free rider problems even after receiving the complaints.

Mary: Yes… arr… assignment questions and instructions may be set clearly for students to understand.

Farhan: And although it is not lecturers or tutors responsibility to contact missing members, erm… I think something should be done to deal with students who does nothing… but got the same marks as other group members that worked really hard for the assignment.

Jody: I think progress check list which… every members are required to fill in upon every meeting or tutorial class need help in resolving this issue.

Interviewer: Thanks a lot for willing to participate in this study. We will take your suggestion and recommendations into consideration to improve our students' academic performance. Thank you.

APPENDIX J

Instructor 1 Instructional Needs Interview Transcript

Interviewer: Hello, good morning. Thank you very much for volunteer to participate in this study. Please be informed that all data collected in this interview session will be kept anonymous and confidential. You as the respondent, have the right to withdraw from this study anytime. The objectives of this interview session is to study the current teaching practices of you as an instructor and expert in this area, your current teaching practices of teamwork skills among the students, and the instructional challenges faced by you and the students in current teaching practices. Firstly, what is your current teaching practices as a lecturer for more than ten years?

Emily: Good morning. Well… my current teaching practices is to teach using PowerPoint slides in lecture, erm… of course not forget to interact with students. Anyhow, this depends on the topic and contents we are discussing. There are times we learn using videos and case study in tutorial classes. Previously, I used to teach using Clickers Students Response System which was highly recommended by our university few years ago but now I find it not really suitable for some units. As for one of my unit, erm… Social Innovative Project, it is more practical in which students are required to experience the work of a social enterprise and gain fuller understanding of the operations, management and leadership required within social enterprises. Students will apply their knowledge learned through the lectures and field work to real world challenges which is more important for their future career. Anyway… this all depends on the learning outcomes of the unit.

Interviewer: How do you interact with your students in a large lecture?

Emily: I usually propose questions to the students in lecture… you know… questions that are related to that particular lecture. I usually ask them to do brainstorming in pairs, with their friends and sometimes individually. Erm… but the problem now is we have reduced our lecture to only one hour. So, I will do this in the tutorial classes, sometimes.

Interviewer: My second question is what is your current teaching practices of teamwork skills among the students?

Emily: I strongly agree that teamwork is crucial in learning. Team activities are usually conducted in the tutorial classes. Most of the time, the students are sitting in groups to do group discussions. They are also required to present after their discussion. This is my usual practice with students. Beside this, the students also required to do their assignments in teams. Recently, we are collaborating with our Melbourne counterpart to start using Team-Based Learning approach for few units. You are interested to study on TBL as well, right?

Interviewer: Yes, I am now doing a research on Team-Based Learning. Based on your experience and observation, how do the students find team-based activities?

Emily: Oh… good… majority of them prefer team-based activities than the traditional learning activities… like to answer the questions individually in class… especially for the Team-Based Learning approach. I got fairly well feedback last few semesters. Most of the students said that they can learn better using this method.

Interviewer: Oh, good to hear this. My last question is what are the instructional challenges faced by you and the students in current teaching practices?

Emily: Based on my experience, I think the main issue is our students find it hard to relate the learning contents with other topics and units. Erm… Most of them are lack of critical thinking and higher order thinking skills. What else… erm… My experience taught me that the students were usually not doing well in case study questions, especially during the final exam. This is most probably because they are weak in the real-life application as well. And this is a great challenge for me as a lecturer and tutor.

Interviewer: Okay, is there anything more that you want to share with me?

Emily: Yes, I would like to add on to another issue in which some of my students were not well-prepared for classes. Some of them were not even bother to read the materials provided before class. That's why some of them were not doing well for this unit. Erm… that's all from me. Hopefully these information helps in your study.

Interviewer: Yes, it helps a lot. Thank you so much for willing to participate in this study. Wish you have a great day ahead.

Instructor 2 Instructional Needs Interview Transcript

Interviewer: Hello, good morning. Thank you very much for volunteer to participate in this study. Please be informed that all data collected in this interview session will be kept anonymous and confidential. You as the respondent, have the right to withdraw from this study anytime. The objectives of this interview session is to study the current teaching practices of you as an instructor and expert in this area, your current teaching practices of teamwork skills among the students, and the instructional challenges faced by you and the students in current teaching practices. Firstly, what is your current teaching practices as a lecturer for more than ten years?

Albert: Good morning. I am ready to provide you with the necessary information. As far as you concern, I always see lecture class as a mean to help students to think about the key concepts… arr… not just to transfer the knowledge from me as a lecturer to the students. My practice is to share my experience and ideas with the students in lectures while tutorial classes would be usually more… I can say more 'sensible' [laughing], in a way, more focus on the application of concepts. In short, I am concerned about students' understanding for the important concepts.

Interviewer: How do you interact with your students in a large lecture?

Albert: Yea… I have to admit that interaction is not so possible to lecture due in the class size and time constraint. Interaction is usually done during the tutorial classes or after class. I am ready to help the students in regard to their learning and assignment tasks.

Interviewer: My second question is what is your current teaching practices of teamwork skills among the students?

Albert: I rarely to team… arr… I rarely have team activity in lecture class. I spend time to share the relevant theories and concepts with the students that I believe to be more important for their future career. Team activities are usually carried out during the tutorial classes for them to discuss their assignments and tutorial activities… I usually let my students to work at the answers by themselves first, then discuss what they have with their peers, and lastly discuss the outcomes together as a class. However, I started to implement Team-Based Learning method last two semesters

with Dr Voon and the unit convenor from our main campus. You are also planning to practice this approach in your unit, right?

Interviewer: Yes [laughing], I am now doing a research on Team-Based Learning. Based on your experience and observation, how do the students find team-based activities?

Albert: Even though I believe concepts are important. However, I think our students do not like the theory part and find them boring… They enjoy working in teams, especially Team-Based Learning approach that can enhance their understanding for the theories and concepts in a lecture way.

Interviewer: Oh, glad to hear this. My last question is what are the instructional challenges faced by you and the students in your teaching practices?

Albert: Challenges… The main challenge for me I think is the issue where majority of the students did not really well-prepared for classes and most of them did not do revision after classes as well. And… the challenge for students is there is lack of interaction between the students and their lecturers, especially in the lecture due to an only 1-hour lecture for some units.

Interviewer: Alright, is there anything more that you want to share with me?

Albert: Positively, Team-Based Learning works in solving the instructional challenges mentioned above. This is proven by literature, isn't it?

Interviewer: Yes, it is. And now I am doing needs analysis for Team-Based Learning approach from both students and instructors perspective. Thank you very much for willing to participate in this study. Wish you have a great day ahead.

Albert: No problem. All the best for your research.

APPENDIX K

Instructor 1 Development Phase Interview Transcript

Interviewer: Hello, good afternoon. Thank you very much for volunteer to participate in this study again. Please be informed that all data collected in this interview session will be kept anonymous and confidential. You as the respondent, have the right to withdraw from this study anytime. The objectives of this interview session is to study, number 1, your thoughts about Team-Based Learning, number 2, the problems faced by you and your students in Team-Based Learning, and number 3, the strategies or methods suggested to overcome the problems. Firstly, what is your thoughts about Team-Based Learning after conducting this approach for about two semesters?

Emily: Good afternoon. Thanks for inviting me again. Erm… based on my experience, I see most of the students enjoy learning using Team-Based Learning approach compared to the traditional teaching and learning method. This is indicated in the students' feedback form. For me personally, I think… TBL approach is good to increase class interaction and to build up teamwork among the students. This is important for them to complete their group assignment and presentation. I see good team spirit at the end of the semester. So, I think this method is also applicable to our final year unit… just like what we are doing now for our advanced Capstone unit.

Interviewer: Okay… let's move on to our second question. What are the limitations of Team-Based Learning as faced by you and your students in the previous semesters?

Emily: Limitation… erm… I think problems, yes… there are few unforeseen problems. The main issue would be the preparation issue. There were students who did not perform well in their Individual Tests because of not well-prepared for class. It would be good if short lecture video could be uploaded to the Blackboard before the class. Some students also commented about the time given to answer the application exercises were not sufficient. Maybe we can extend the time from 1 hour to 1 hour 30 minutes, maybe. And, yes… some students also recommended to replace the written answer scripts for application exercise with typing since some

of them are more comfortable to type their answers rather than writing… it down. I personally think that there must be a follow up after the application exercises to make sure that all the team members learn in the activities. For instance, err… wrap up session by the tutors.

Interviewer: My last question is what are your suggestions to overcome the problems mentioned above? But… erm… since you have suggested few solutions just now, can you summarize the solutions for us?

Emily: Oh… sure… [laughing]. Erm… as I mentioned just now, I suggest to firstly… erm… to prepare short video lecture for the students for certain topics, secondly, to extend the time allocated for application exercises… to give the students option whether to type or to write their answers for the application exercises, and lastly…to conduct a follow up activity after the application exercises.

Interviewer: Okay, thanks for your summary. Is there anything more that you want to share with me? Before we end the session.

Emily: That's all from me. All the best for your study.

Interviewer: Thank you. Thank you so much for willing to participate in this study. Wish you have a great day ahead.

Instructor 2 Development Phase Interview Transcript

Interviewer: Hello, good afternoon. Thank you very much for volunteer to participate in this study again. Please be informed that all data collected in this interview session will be kept anonymous and confidential. You as the respondent, and have the right to withdraw from this study anytime. The objectives of this interview session is to study, number 1, your thoughts about Team-Based Learning, number 2, the problems faced by you and your students in Team-Based Learning, and number 3, the strategies or methods suggested to overcome the problems. Firstly, what is your thoughts about Team-Based Learning after conducting this approach for about two semesters?

Albert: Good afternoon. No problem. I am ready to provide you with any relevant information again… So, as I mentioned in the last interview, Team-Based Learning works empirically in resolving the instructional challenges such as lack of class interaction and application skills, and so on… But, practically, it is… still too early for me to comment. We need time to improve this method continuously.

Interviewer: What about the student feedback regarding this method?

Albert: Oh… majority of their comments were positive… quite positive, I can say. But of course there are some comments, erm… I mean negative comments from them also.

Interviewer: Okay. let's move on to our second question. What are the problems faced by you or the negative comments given by your previous students? … erm… I mean for this approach.

Albert: Most of them commented about their team members. They prefer to choose their own team members rather than allocated by the tutors. The reason given was they could work better with their friends they know. I personally don't care about this as long as their team members are diverse. Other than this, I found that the students were not doing quite well in their individual tests and application exercises.

Interviewer: What do you suggest to overcome the problems mentioned above?

Albert: Okay… To increase the students' performance for application exercises, few minutes, maybe 30 minutes… should be allocated for team

presentation activity after the application exercises to ensure intense learning and quality thinking among the students, and also… enhance quality information exchange among the students. Extra time should also be given. Some of the tutorial classes was at 8:30 morning. We usually started our application exercises at 8:40 and ended at 9:40. However, some students could not be able to make it and, as a result… could not complete the tasks on time. As for the tests… even though lectures should come after the tests, but I still think that brief lecture should be given to the students before class, as preparation.

Interviewer: Oh… Thank you so much for your constructive suggestions. Thanks for willing to participate in this study. Wish you have a great day ahead.

Albert: No problem. All the best to you.